MONETARY AND FISCAL POLICIES OF BRAZIL 1953-1963

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A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA
1968

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ACKNOWLEDGMENTS

As most of the necessary information for this dissertation perforce comes from a foreign country, I find that there are several persons or organizations that should be thanked for their assistance. Without the aid received, much of the research material used would have been neither primary nor current.

First, I would like to thank the Library of Congress for the extensive use of their facilities. Also very important were the assistance of the staffs of the Brazilian Embassies in Washington, D. C., and in Tegucigalpa, Honduras, and the use of the library of the International Monetary Fund in Washington, D. C. I am indeed thankful for the assistance given me by Gertrude Meare of the United States Department of Commerce in allowing me to borrow "the only available copy" of the 1964-1966 development plan, which was replete with pertinent statistics and projections.

And finally, I must show more than appreciation for the tremendous amount of assistance from my wife in the form of preliminary and final typing, editing, and encouragement throughout the whole period, from research to completion of the work.

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INTRODUCTION

General Outline

Although the title of this work is The Monetary and Fiscal Policies of Brazil 1953-1963, stress will be on fiscal policy at the expense of monetary policy. This choice actually was not made by the writer; instead it evolved around the fact that Brazil's money market is very narrow, and its capital market almost nonexistent.[1] The result is that even though the standard tools of monetary policy are available, their effectiveness is very weak when compared with a country like the United States, Canada or the United Kingdom. This same argument is not evident when a comparison is made of the effectiveness of the manipulation of government spending and taxation between Brazil and countries of the economic "center." In fact, if anything, the tools of fiscal policy in Brazil may be considered as relatively more powerful than in the developed countries.

Structurally, this study is divided into three parts: Part I, Institutional Structure; Part II, Planning Operations; and Part III, Analysis.

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[1]Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economica, Programa de Ação Economica do Governo: 1964-1966 (Brasilia: Planning Ministry, 1964 [mimeographed]), p. IX-10.

Part I consists of four chapters presenting descriptions of the banking system, the tax system, the transportation system, and the financial and labor markets. This should supply the reader with requisite basic information for evaluation of the material covered in Parts II and III.

Part II is composed of two chapters covering national plans developed both before the time period of this paper and during the period, and certain regional development plans sponsored by the federal government. The organization of the Development Council, the National Planning Commission (COPLAN), and the Ministry of Planning will also be presented in Part II.

The final section consists of two chapters. The first chapter deals with the changes that have evolved over the subject period. The two variables analyzed in detail are inflation and economic growth.

In the last chapter, the final analysis is made of just how successful Brazil was in achieving the goals that are presented in Part II, and precisely what steps would have improved the situation; that is, abviating any structural or political changes.

Physical and Human Bases of the Brazilian Economy

The primary aim of this section is to describe the geography, population, and government system of Brazil, so that the economic potentials and limitations of monetary

and fiscal sections of the Brazilian government may be better understood.[1]

Regional Division and Geography

The United States of Brazil is a republic divided into twenty-one states, five territories, and a federal district. She is the largest of the Latin American republics, having an area of 3,288,000 square miles, comprising 47 per cent of South America. Before the statehood of Alaska, Brazil was larger than the United States plus another Texas. The coast line of Brazil is 4,603 miles long, all along the Atlantic Ocean. Topographically the country is divided into three major regions: (1) the huge Amazon Drainage Basin in the north, comprising over 53 per cent of the national area, but only 3 per cent of the population; (2) the Central Plateau, which extends south of the Amazon Basin to the Paraguay and Paraná Rivers; and (3) the Coastal Plain, a narrow strip 100 miles wide or less, stretching from San Luis, Maranhão, in

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[1]The general information on these subjects is drawn chiefly from the following sources: Earl B. Lackey and Peter S. Anderson, Regions and Nations of the World (New York: D. Van Nostrand Company, Inc., 1946); A. M. Whelpton, Economic and Industrial Geography (New York: Pitman Publishing Corporation, 1950); Nels A. Bengtson and William Van Royen, Fundamentals of Economic Geography (New York: Prentice-Hall, Inc., 1950); George T. Renner, editor, World Economic Geography (New York: Thomas Y. Crowell Company, 1951); Hilgard O'Reily Sternberg, "The Physical Basis of Brazilian Society," Brazil: Portrait of Half a Continent, ed. by T. Lynn Smith and Alexander Marchant (New York: The Dryden Press, 1951); Hilgard O'Reily Sternberg, "Brazil - Complex Giant," Foreign Affairs, Vol. 43, No. 2 (New York: Council on Foreign Relations, 1965).

the Northeast just below the Amazon Basin all the way down through the southernmost state of Rio Grande do Sul.

Climate

With reference to climate, Brazil falls into four subzones: the rainy tropics, monsoon tropics, semiarid tropics, and the humid subtropics.

The rainy tropical climate exists in the Coastal Plain and the Amazon Basin, with the exception of the southern parts of the southern tributaries that lie in the states of Mato Grosso and Goiás. Rain is constant--the total annual precipitation ranges from 60 to greater than 200 inches.

The monsoon tropics is characterized by a definite rainy season ranging from four to eight months followed by an equally definite dry season in the winter months. The interior of the Central Plateau lies in the monsoon tropics. Politically, this area includes all of the states of Goiás and Mato Grosso, the new Federal District, and some of the western part of Minas Gerais and São Paulo.

All of the northeastern bulge, except the narrow Coastal Plain area, is in the semiarid tropics. Another name for this area is the "Polígono das Secas," or the arid polygon. It includes the eight states of the Northeast plus Bahia and the northern part of Minas Gerais. The air is dry, with little or no precipitation except in the three summer months, when torrential rains often cause widespread damage.

The three southern states--Paraná, Santa Catarina and Rio Grande do Sul--are in the humid subtropics, the same

type of climate found in the southern parts of the south-eastern states of the United States.

Geological Composition

In order to develop a fuller outline, a description will be made of the geological foundations and formations existing in the sections under consideration, thereby indicating the resultant effects on the economic value of each area.

The Amazon Basin is composed of low-lying sedimentary formations with rather poor acidic soil covered with thin humus; the latter condition is due to the leaching and erosion caused by heavy rains. The limited flood plains of the Amazon, however, are very rich.

In the eastern and southern area of the northeast bulge the plateau has a crystalline basement of gneiss, mica schist, granite and quartz, sometimes called the "Brazilian Complex." Hence, there is little or no natural underground storage area for water in this semiarid region. In the remainder of the Northeast--in the states of Maranhão and Piauí--the basement is of sedimentary rock and sandstone, which are good natural reservoirs for ground water.

From southern Minas Gerais to the northeast for about 750 miles lies a range of low mountains, 30 to 150 miles wide, named Serra do Espinhaço. This mountain range is built up of a folded base of "Brazilian Complex" and is located between the São Francisco Valley and the Coastal Plain. Being of old age geologically, the more resistant formations are at or near the surface. For this reason many such

minerals as iron ore, manganese, diamonds, corundum, and quartz have been found near the surface in this region.

The Central Western Plateau is principally of sandstone basement except for small areas of volcanic or limestone deposits. The soil is mainly of poor to fair quality. At the southwest corner of this area, at the junction of the Bolivian and Paraguayan borders, there is a sheer drop of some 1,500 feet to a floodland of the Paraguay River. This area, which is known as the "Pantanal," is about 600 by 300 miles and consists of rich deposits of alluvium. Though it is not a swamp, it is often covered by as much as 20 feet of water during the wet season (the summer months). This section has limestone deposits, salt licks and large deposits of high-grade iron and manganese ore.

The three southern states, plus the state of São Paulo, form the Southern Plateau. Here there is an extensive layered structure of subhorizontal sedimentary and volcanic beds over the crystalline basement. The weathering of the rich volvanic lava with the sedimentary rock has formed a rich terra-roxa (purple earth), which, together with reasonably high altitudes and a humid climate alternating with a short but definite dry period, is a prerequisite to good coffee culture. The ground structure here is similar to that of Uruguay and northeastern Argentina.

In relation to the climate and geologic factors stated above, it may be indicated that with the exception of the four small states of the Southern Plateau and the flood

plains of various rivers, extensive use of fertilizer will be required in order to obtain good agricultural returns from the land for any extended period. In the Northeast in the Polígono das Secas the extensive use of irrigation is also necessary.

Government

A discussion of the government and people of Brazil is now in order to complete this general basis outline. The government of the republic of Brazil was modeled on that of the United States. In matters of internal law and police jurisdiction, Brazilian states do not have quite as much autonomy as those of this country. But until 1931 they had much more freedom of action in fiscal affairs, being able to negotiate international loans independently of the federal government. The states still have the right to impose export tariffs on interstate and international commerce.

Population

According to the two censuses taken in July, 1950, and September, 1960, Brazil's population increased from 51,944,000 to 70,967,000, or at 3.1 per cent per annum over the ten year period. The density of population varies from 1.9 inhabitants per square mile in the Amazon Basin to 80 per square mile in the Southern Plateau.[1] Over 80 per cent of

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[1]IBGE, Conselho Nacional de Estatística, Anuário Estatístico do Brasil - 1964, Ano XXV (Rio de Janeiro: Serviço Gráfico do IBGE, 1965), p. 29.

the population is concentrated in the Southern Plateau and Coastal Plain, which together make up only 15 per cent of the national area.

Education

It is estimated that only about 50 per cent of the persons ten years of age and older are literate; this ratio has remained almost steady through the 1950's despite "compulsory" education for the first four grades of elementary school.[1] In fact, about half of the rural children have no access to elementary schools.

Ethnological Characteristics

About 45 per cent of the people of Brazil are of European extraction, the original and dominant stock being from Portugal, with later additions chiefly from Italy, Portugal, Spain, and Germany, in that order. During the past decade, however, Japanese immigration has been in fourth position, ahead of Germany.[2] There is a definite mixture of races between the whites and aboriginal Indians, especially in the interior, and between the whites and negroes in the North and Northeast. In the 1950 census the racial differences were reported as 62 per cent whites, 11 per cent negroes, 26½ per cent browns (mulattoes primarily, as Indians represent

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[1]Inter-American Development Bank, Institutional Reforms and Social Development Trends in Latin-America (Washington: IADB, 1963), p. 96.

[2]IBGE, Anuário Estatístico do Brasil - 1954 to 1964, passim.

less than 0.2 per cent) and ½ of 1 per cent yellow race (chiefly Japanese). There is less racial discrimination than in the lands of Brazil's neighbors. In the rural and suburban areas, however, this racial tolerance is outweighed by a highly stratified social system that is a holdover from colonial days. This rigid class system may be a difficult barrier to overcome in an economic development program, especially in the older rural settlements.

Productive Capacity Per Capita

The productive capacity per capita is very low. In addition to the lack of technological change and to the low rate of productive capital goods per man-hour, especially in the field of agriculture, there are three sociological and/or demographic reasons for this dilemma. They are: (1) the lack of education, (2) poor health, and (3) a relatively small percentage of the population of productive age. The poor health results from bad diet (low protein) plus the following diseases: malaria, tuberculosis, trachoma, intestinal disorders, and diseases caused by various types of worms. The prevalence of these health conditions is sustained by at least two conditions evident in 1958. First, there is only one medical doctor per 2,500 people;[1] and this rate has been steady for at least seven

[1] Ibid., 1960, p. 242. The shortage of dentists is more drastic--only one per 59,000 people.

years.[1] Finally, there are only 86,050 hospital beds in all Brazil, or a bed for every group of 780 people, and over one-third of all Brazilians live in regions devoid of hospital facilities.[2]

The high percentage of non-productive population (in 1950 over 53 per cent were less than twenty years of age) is caused by very high birth and death rates, with a life expectancy of only twenty-eight to fifty-seven years (depending on the location).[3] This condition is emphasized by Brazil's low immigration figures for the past thirty-five years, since immigration generally adds to the relative number of men to women, and to people of productive age.

National Political Climate during Time Period of 1953-1963

As previously stated, the Brazilian federal and state governments were designed from the United States model. The federal government is constituted with the three founts of power in the executive, legislative and judiciary. It should be strongly mentioned that the bicameral congress is not a rubber stamp of the executive; in fact, in some ways it has even more power than the United States Congress. Despite this legislative power, the great depression presented the opportunity for a defeated presidential candidate,

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[1]Ibid., 1954, p. 350.

[2]Ibid., 1960, p. 23.

[3]Ibid., 1954, p. 57.

President Getúlio Vargas, to rule as dictator for 15 years from 1930 to 1945. During the subject period of this study the dictatorship or rule of a person not constitutionally elected or elected to the position of President of Brazil did not occur; there were at least three instances, however, when political unrest took precedence over economic decisions. Therefore, it seems apropos to present Table 1, which contains the dates of inauguration and names of each new president of Brazil. Also included are the dates of departure and reason therefore, unless the president left after completing the normal five-year tenure, which is non-consecutively repetitious in Brazil.

Actually, Table 1 is not complete without inclusion of relevant information pertaining to the short period of Brazil's parliamentary experience. Upon the resignation of Janio Quadros on August 25, 1961 (because of "frustrations" with other government officials, especially in the National Senate), the National Senate expressed fear of the misuse of presidential power by the then Vice-President João Goulart. In an effort to preclude "caudillo" activities of Goulart, Congress instituted the parliamentary system by constitutional law. Tancredo Neves was appointed Prime Minister one week prior to the inauguration of João Goulart as President of Brazil. The tenure of parliamentarianism was shortened to about sixteen months when the system was abolished in January, 1963, by a national plebiscite.

Table 1

List of Brazilian Presidents with Dates of Inauguration and Departure When Prior to Normal Tenure, with Explanations - 1951-1964

Date	Name of President	dotion	Explanation
1/31/51	Getúlio Vargas	Inaugurated President	Due to national election
8/24/54	João Café Filho	Inaugurated President	As Vice-President, succeeded upon suicide of President Vargas
11/5/55	Carlos Coimbra da Luz	Inaugurated President	Succession of Senate President on resignation of Café Filho
11/11/55	Nereu Ramos	Inaugurated President	Succession of Vice-President of Senate on resignation of President
1/31/56	Juscelino Kubitschek	Inaugurated President	Due to national election
1/31/61	Janio Quadros	Inaugurated President	Due to national election
9/7/61	João Goulart	Inaugurated President	de Vice-President, succeeded after resignation (due to frustration with other government officials) of President Quadros
4/1/64	Ranieri Mazilli	Appointed President	Succession of President of the lower house of Congress when President Goulart fled Brazil during military uprising
4/9/64	Humberto Castello Branco	Inaugurated President	Constitutional election by National Senate

Source: U. S. Department of State, Government Documents, "Review of Illegal and Unscheduled Changes of Heads of State 1930-65" (Washington: U. S. Government Printing Office, 1966), p. 87.

On further perusal of Table 1, one can surmise that other parts of the 1953-1963 period were not exactly stable politically. Actually, during the almost three-month tenure of Acting President Ramos, the state of seige had to be renewed beyond the one-month legal limit to provide for the inauguration of President Kubitschek. Economically speaking, there were other periods of time during which foreign and domestic affairs were at least held in abeyance while awaiting clearer political air. The first instance occurred from 8/25/61 to 9/7/61 after the resignation of Quadros. For some time thereafter political and economic indecision reigned while the parliamentary form of government was being assessed. Uncertainty reached a climax with the exercise of "caudilliemo" by Goulart thereafter.

Part I

INSTITUTIONAL STRUCTURE

Chapter 1

THE BANKING SYSTEM

As there was per se no central bank in Brazil before the year 1964, the over-all banking system can best be presented by describing the two entities that performed the functions of a central bank. These organizations are the Banco do Brasil and the Superintendency of Money and Credit. First a brief history of the Banco do Brasil will be presented.

Banco do Brasil

Historical Outline

The present Banco do Brasil is the fourth bank of that title, and it was organized in 1905. It was limited to "simples preocupações de ordem comercial e de interesses regionais" and to be a "parte integrante do governo."[1] This last statement was made by the President of the Republic, even though 45 per cent of the shares of the fourth Banco do Brasil were and still are held by private investors.

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[1] J. Nunes Guimarães, "Banco do Brasil e Crédito Especializado," Arquivos Econômicos (Rio de Janeiro: Banco do Brasil, Dezembro, 1955), p. 175. The rough translations are: "simple interests of a commercial nature and of regional interest" and "an integral part of government."

Actually, the three other Bancos do Brasil, starting with the first one in 1808, all had no appreciable amount of shares owned by private investors. In fact, in an effort to raise capital, Dom João, the King of Portugal and Brazil, offered knighthood to the principal shareholders of the first Banco do Brasil.[1] In 1833 the second Banco do Brasil was authorized but never became operative due to its failure to obtain the required subscriptions from private investors. Finally, in 1853 the third Banco do Brasil was formed by the merging of the two largest commercial banks; hence it can be seen that private ownership of shares in a federal bank is not a recent innovation, at least not in Brazil.[2]

With respect to issue privilege of the Banco do Brasil, each of the first three such banks was organized mainly for the specific purpose of having it perform as an issue bank. The first Banco do Brasil was given no specific issue limitation--only "caution" was suggested; however, the extravagance of the Portuguese court in Brazil during the French occupation caused too frequent use of the printing press by the bank. Despite the fact that the bank's vaults were stripped of all gold, silver and precious stones by Dom João upon returning to his throne in Portugal

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[1]J. F. Normano, Brazil: A Study of Economic Types (Chapel Hill: The University of North Carolina Press, 1935), pp. 167-76.

[2]Ibid., pp. 169-71.

in 1821, the bank was not liquidated until 1829. The final factor that caused the bank's failure was the counterfeiting of about one-third of the Brazilian copper money--as copper perforce had been used to replace the gold and silver removed to Portugal.[1]

Upon formation of the third Banco do Brasil in 1853, it was declared the sole bank of issue, with authority to issue notes valued at double its capital.[2] During the financial crisis of 1857, however, the Banco do Brasil exceeded this issue limitation, and other banks were given issue concessions based on their holdings of federal government securities. Other banks and commercial houses without issue concessions also issued notes; however, in 1860 a law was passed that stopped the "unauthorized issue" of notes by these institutions. In 1862 the Banco do Brasil merged with an issue bank in Rio de Janeiro and purchased the issue privilege from the other issue bank in Rio.[3] The crisis of 1864, brought about by the scarcity of money during a time of economic expansion, paradoxically caused the removal of issue privilege from the third Banco do Brasil.[4]

With the transfer of the government in 1889 from monarchy to republic, the Banco do Brasil was retained as

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[1] Ibid.

[2] Ibid., pp. 171-73.

[3] Ibid., pp. 174-76.

[4] Guimarães, pp. 173-74.

the official government bank but not given issue privilege until a year later, after six commercial banks in the three geographical zones of Brazil were given issue limits provided their notes were backed by federal bonds. The Banco do Brasil was required to back its notes with 50 per cent gold.[1] In December, 1890, the two issue banks of the central zone merged to form the Banco da República dos Estados Unidos do Brasil with bank note privilege of 33⅓ per cent gold basis. Two years later the Banco do Brasil merged with this bank to form the Banco da Republica do Brasil, which remained as the federal government bank until it was liquidated and replaced by the present Banco do Brasil.[2]

The issue of notes by all banks was halted in 1891 and not renewed until 1923; however, this did not stop the issue of paper money in Brazil. It only transferred this operation to the Federal Treasury (and Rediscount Department from 1921 to 1923).[3]

Since early in the Empire there has been an almost constant cry for a "Central Bank" of Brazil, but until recently, this apparently was only a plea for the "sole bank of issue" which was experienced several times in the

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[1]Normano, pp. 178-80.

[2]Ibid., p. 180.

[3]Ibid., pp. 196-98.

lives of the Banco do Brasil although never for a long period of time, the longest being from 1812 to 1828 during the life of the first Banco do Brasil. All other periods of "sole issue" status endured for less than ten years; the final one lasted only from 1922 to 1926, during which time it was, however, the closest to the modern concept of a central bank in that it performed rediscount services and acted as a check clearing house at the main office in Rio de Janeiro and at the sixty-nine branch offices throughout Brazil. Since then, attempts have been made for the institution of a complete central bank. In 1945, the Superintendency of Money and Credit was installed to prepare the way for a central bank. Then in June, 1947, the Minister of Finance submitted to Congress a finished plan for a central bank plus six specialized banks. The federal government would subscribe 100 per cent to the former and 50 per cent to the other banks.[1] The principal arguments against this plan were that it would be too costly to set up the six specialized banks and that it would be a mistake to remove from government the Banco do Brasil with its good name and established connections. Other points presented were the steady and rather high profitability of the shares (55 per cent owned by the federal government) of the bank

[1]George Wythe, Noyce A. Wight and Harold M. Midkiff, Brazil: An Expanding Economy (New York: Twentieth Century Fund, 1949), p. 284.

to the government; that the SUMOC along with the Banco do Brasil were already performing the actions of a central bank; and that only a few additional laws or regulations were needed.

In 1949 the Joint Brazil-United States Technical Commission presented an over-all plan (Abbink Plan) for economic development that included the formation of a central bank to perform "a most important role in guiding savings and bank resources into most productive activities, thus assisting in economic development."[1] But in this same report the Joint Commission warned against too rapid a transformation of agricultural credit from the Banco do Brasil to a new Rural Bank because of the large losses that have been absorbed by both the General Credit and the Agricultural and Industrial Credit Departments in the handling of agricultural loans.[2]

In addition there are two situations in which the Banco do Brasil's combined status of government and commercial bank leads to credit expansion when contraction may be desired for the good of the economy. First, when an increase in reserve requirements is placed on the private commercial banks, the additional reserve funds are deposited

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[1] The Department of State, Report of the Joint Brazil-United States Technical Commission (Washington: U. S. Government Printing Office, 1949), p. 165.

[2] Ibid.

with the government bank, the Banco do Brasil, thereby giving her the authority and ability as a commercial bank to expand loans. Of course the ratio between the contraction of loans by private banks with expansion by the Banco do Brasil will be largely determined by the changes in the size of reserves of ready cash in both the Banco do Brasil and the other banks.[1] The second example concerns the inflationary bias of the Banco do Brasil in that an increase in its cash ratio usually leads to the expansion of private loans; however, a decrease in cash ratio does not necessarily bring about the normally expected decrease in loans, because of "necessary loans" made by the bank "at the instance of the government or that represent special types of loans not available at other banks."[2] The tendency of cancellation of mutual debts between the Treasury and different departments of the Banco do Brasil by special legislation allows the issue of notes without any gold or international backing; this, of course, also influences the amount of private loans that may be made by the bank.

In 1952 a representative of the Banco do Brasil, in a report given at the Third Reunion of Central Bank Technicians of the American Continent, reported that although

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[1] Alexandre Kafka, "Brazil," Benjamin H. Beckhart, ed., Banking Systems (New York: Columbia University Press, 1954), p. 105.

[2] Ibid., p. 106.

Brasil was now in a position where the organization of a central bank would probably be beneficial to the economy, in the past the "hybrid structure" of the Banco do Brasil had permitted many operations needed for the development of Brazil that would not have been possible with a central bank. Among these operations were the granting of credit, especially for investments in the fields of agriculture and industry, which were of high priority in the development of the economy. At the same time there was very little risk capital and it was moving principally to real estate and trade, so without the Banco do Brasil's loans (although at the cost of inflation), Brazil's positive growth and industrialization momentum would have been slowed down or stopped. Another important contribution of the Banco do Brazil's "hybrid structure" is the acceleration of the development of the interior and sparsely settled coastal areas by the installation of branches before it was feasible for a purely commercial bank to do so. And not the least benefit was obtained through the extension of terms of credit for both industry and agriculture, from short-term as granted by other commercial banks to medium and long-term as granted by the Banco do Brasil.[1] The following

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[1]Guimaraes, pp. 191, 195, passim. Here Guimaraes showed that in the last century Belgium had successfully followed a similar bank policy in the development of industry.

table demonstrates both the extension and growth of branches of the Banco do Brasil since 1941.

Table 2

Banco do Brasil - Distribution of Branches
(Numbers of branches as of December 31)

Region	1941	1951	1955	1958	1961	1963
Guanabara[a]	7	15	14	15	17	20
São Paulo State	37	63	81	88	109	117
North	5	10	12	13	13	13
Northeast	29	49	55	56	60	68
East[b]	47	88	106	113	145	158
South[c]	25	44	72	78	101	111
Center West	7	15	19	22	27	37
Foreign	1	2	2	2	4	5
Totals	157	286	361	387	476	530

[a]Federal District before 1960

[b]Excluding the state of Guanabara

[c]Excluding the state of São Paulo

Source: Banco do Brasil, Relatório da 1959, 1964 (Rio de Janeiro: Banco do Brasil, 1960, 1965), pp. 275, 249.

Among the advantages attributable to a central bank are the increase in use and more developed operation of functions already performed by the Banco do Brasil, viz., rediscounting, check clearing, bank credit control, coin issue, and development of government and private security

markets.[1] As outlined in this paper, despite having to operate under almost constant conditions of governmental deficits--quite large in recent years--the Banco do Brasil has successfully performed a complicated and difficult task, that of keeping Brazil's fiscal head above water while Brazil was undergoing a period of steady growth. Of course, the Banco do Brasil was helped by such organizations as the International Monetary Fund, the World Bank, the Export-Import Bank, and Brazilian diplomats. However, as indicated by the Joint Brazil-United States Technical Commission in 1949, the economy of Brazil would be better served by a central bank.

In summation, the following recommendation of the referred Joint Commission is quoted:

> One of the principal advantages of a specialized Central Bank is that it could give its undivided attention to such important matters as the proper adjustment of the money supply to the essential requirements of Brazil's internal economy and the maintenance of equilibrium in Brazil's international accounts, without the distractions of a general banking business. It could provide more effective supervision of the commercial banking system, since it would not be a competitor of the other banks, and could regulate the volume of credit extended by the commercial banks

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[1] In 1959, for the first time, the insurance companies shifted from investments in real estate to income yielding securities. This shift was from better than a two to one ratio in favor of real estate in 1958 to better than 52 per cent of income yielding securities in 1959. Conjuncture Economique, Year VII, International Edition (Rio de Janeiro: Fundação Getúlio Vargas, December, 1960), pp. 57-58.

> through the effects on their reserves of its rediscount operations and its purchases and sales of securities in the open market, and, if necessary, through changes in the minimum requirement for cash reserves to be maintained by the banks.
>
> Through all these activities the Central Bank could be expected to play a most important role in guiding savings and bank resources into the most productive activities, thus assisting in economic development. Its prime aim, however, must be that of attempting to counteract both inflationary and deflationary tendencies in incomes and prices. For that reason it could not be committed to either a tight or easy money policy in controlling the reserves of the banking system (and, through its control of cash reserves, the total means of payments). It could not grant unlimited rediscount privileges to the commercial banks at all times; it could not give support to the government-bond market irrespective of the general economic situation; it could not be relied upon as source of funds for specialized government or semigovernmental credit institutions, nor for the direct financing of development programs. However, its operations could be of the greatest benefit to the nation in promoting monetary stability and sound credit conditions, thus setting the stage for successful execution of developmental projects by government and by private business.[1]

As of this writing, Brazil does have a central bank, both de facto and de jure; however, as it was not initiated until April, 1965, its operation will not be covered in this paper, which is concerned only with a period ending with the year 1963.

Before discussing the operations of the Banco do Brazil, because of its unusual structure it is the writer's impression that an outline of the basic parts will enhance

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[1] The Department of State, Report of the Joint Brazil-United States Technical Commission, p. 165.

appreciably the significance of both statistics and descriptive information of the bank's operations. First, it should be mentioned that the Banco do Brasil is composed of six departments and the Bank Loans Fund. Three of the departments and the Bank Loans Fund are considered to be at least semiautonomous if not autonomous, as their directors are appointed by the President of the Republic, as is the President of the Banco do Brasil. These departments are as follows: Rediscount, Exchange, and Foreign Commerce. The directors of the other three departments are selected by shareholders of the bank.[1] These last three departments cover the fields of General Credit, Agricultural and Industrial Credit, and Colonization.

General Credit Department

For the first fifteen years of the present Banco do Brasil, the General Credit Department was the whole bank; this may partly explain why this department performs both central and commercial banking operations. It is the basic core of the bank, receiving deposits from the federal, state, and municipal governments, and the public. In turn, it makes loans to these same entities and individuals; with respect to bank loans, they may be either for its own account or for that of the Bank Loans Fund. In its

[1]The federal government controls the voting through ownership of 55 per cent of the shares. Cf. supra, p. 19.

operations in the private sector, the General Credit Department is the largest credit institution in the country, with 525 domestic branches in 1963.[1] The distribution of the branches of the bank and its effect on the economy are indicated below.

Table 3

Distribution of Credit
Selected Years 1957-1963
(in percentages of balances at the end of year)

Sectors receiving loans	Commercial Banks				Banco do Brasil			
	1957	1959	1961	1963	1957	1959	1961	1963
Government	4	8	2	2	96*	92*	98*	98*
Banks	3	2	6	7	97	98	94	93
Private	63	66	62	62	37	34	38	38
Totals	45	56	39	40	55	44	61	60

*Exclusive of exchange operations ordered by National Treasury.

Sources: Banco do Brasil, Relatório de 1959, 1964 (Rio de Janeiro: Gráfica Editora Livro S. A., 1960, 1965), pp. 256, 182-83; and IBGE, Anuário Estatístico do Brasil - 1964 (Rio de Janeiro: Serviço Gráfico do IBGE, 1965), p. 231.

With reference to Table 3, the Banco do Brasil supplied from 34 to 38 per cent of private credit from 1957 to 1963, and over 90 per cent of credit to government (federal,

[1]Guimarães, p. 176.

state and local) and to commercial banks. Although only 44 per cent of all bank loans and discounts were supplied by the Banco do Brasil in 1959, greater than one-half of all bank credit was furnished by it over the 1953-1963 period.[1]

A more detailed presentation of loans to the private sector is found in Table 4, which also includes the "mixed companies" (combined federal and state government and private ownership) in the private sector.

Agricultural and Industrial Credit Department

The Agricultural and Industrial Credit Department was established in 1936 to provide short to medium term loans (one to five years) to farmers, cattle raisers, and to industry. Because of the tendency of commercial banks to shy away from any agricultural loans except to the largest producers in leading export fields, a source of rural credit was needed, especially to provide credit on terms long enough to avoid the need for refinancing before the harvest. With commercial banks, not only are the loans rarely longer than four months, but also the interest rates on agricultural loans are quite high--at least 12 per cent compared with 7 per cent on loans from the Banco do Brasil. In fact, the Agricultural and Credit Department

[1]The size limitations of savings banks and commercial banks will be covered in a later subsection of this chapter.

Table 4

Loans to the Private Sector by the Banco do Brasil and Private Commercial Banks 1951-1963

Year	Loans to Private Sector (in 1,000,000 Cr.)			Percentage Participation		
	Banco do Brasil	Commercial Banks	Total	Banco do Brasil	Commercial Banks	Total
1951	24,735	60,912	85,647	28.9	71.1	100.0
1952	34,357	67,922	102,279	33.6	66.4	100.0
1953	40,395	79,965	120,360	33.6	66.4	100.0
1954	57,387	94,807	157,194	37.7	62.3	100.0
1955	64,962	106,443	171,405	37.9	62.1	100.0
1956	75,094	130,355	205,449	36.6	63.4	100.0
1957	91,787	162,722	254,509	36.1	63.9	100.0
1958	116,039	195,538	311,577	37.2	62.8	100.0
1959	134,397	266,462	400,859	33.5	66.5	100.0
1960	182,634	382,410	565,044	32.3	67.7	100.0
1961	279,738	501,684	781,422	35.8	64.2	100.0
1962	479,250	775,022	1,254,472	38.2	61.8	100.0
1963	735,919	1,209,929	1,945,848	37.8	62.2	100.0

*Includes "mixed" companies.

Source: Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economica, Programa de Ação Econômico do Governo: 1964-1966 (Brasilia: Planning Ministry, 1964 [mimeographed]), p. IX-10.

operates at a loss on agricultural loans and discounts.[1]

Initially 100,000 contos[2] were made available to this department by the National Treasury. Since then the largest amount of funds has come from the social security institutions, followed by public utility companies, the Rediscount Department, and from general funds of the Banco do Brasil.

Although commercial banks supply over 60 per cent of credit to the private sector as a whole, since 1951 the Agricultural and Industrial Credit Department has supplied 70 per cent of the credit for cattle raising and 60 per cent of the agricultural credit. The size of agricultural credit from this department rose from 9.1 billion cruzeiros in 1953 to 396 billion cruzeiros in 1963, which only constitutes an increase of about 100 per cent after allowing for inflation over the period.[3]

In 1951 the National Bank of Cooperative Credit was formed to assist in the financing of agricultural cooperatives. Although the credit granted by this organization increased to 4,263 million cruzeiros in 1963, it was less

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[1]Kafka, pp. 111-12.

[2]In Brazil a conto represented 1,000 cruzeiros in 1963 or 1,000 mil reis before November 1, 1942.

[3]IBGE, Anuário Estatístico do Brasil - 1954, pp. 249-50; Banco do Brasil, Relatório de 1964, pp. 25-27.

than the eleven billion cruzeiros credit granted to cooperatives by the Agricultural and Industrial Credit Department.[1]

Agricultural cooperatives have multiplied rapidly since 1953, from 379 then to 5,515 in 1963.[2] However, cooperative credit amounted to less than 3 per cent of total agricultural loans granted by the Department of Agricultural and Industrial Credit.

Colonization Department

This department was created in 1954 and incorporated into the bank in 1956. The purpose of this department is to aid in the financing of the nuclei of new colonies, chiefly agricultural, and in their further growth. In essence, the goal is to help bring about more production through both the transposition of subsistence level Brasilian citizens to planned communities in the hinterland, such as western Paraná, the arid Northeast and the state of Mato Grosso.

Although this is the first time that a financial agency was organized by the federal government to aid in the promoting of a manpower project in Brazil, twice before such manpower projects were organized in Brazil. Both, however, were organized and financed by private firms and individuals. The first was in the coffee areas of Brazil

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[1] IBGE, Anuário Estatístico do Brasil - 1954, 1964, pp. 380, 243.

[2] Ibid., pp. 379, 311.

in the latter part of the nineteenth century, when a shortage of labor resulted from the freedom of the slaves, and labor had to be enticed to immigrate into Brazil from southern Europe. The next call for labor was in the states of Pará and Amazonas in the Amazon valley during the last three decades of the rubber boom which covered the period from 1880 to 1915. This last colonization effort did not deal with foreigners but instead with the movement of workers from the subsistence level drought-stricken Northeast to the labor-poor rubber forests.[1] The programs supported by loans from the Colonization Department of the bank are similar to the latter except that a government agency, the Colonization Department of the Banco do Brazil, supplies the money needed for financing the projects. Also different is the fact that the majority of projects are located in the poverty-ridden area of the Northeast instead of in a prosperous or economically active area.

This department did not get off the ground before 1962 when 2,883 projects, all but 1,055 of which were in the Northeast, were financed with loans amounting to 774 million cruzeiros; before then, only 55 million cruzeiros had been loaned for 275 projects. In 1963 958

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[1]Celso Furtado, The Economic Growth of Brazil (Berkley and Los Angeles: University of California Press, 1963), pp. 134-54.

million cruzeiros were supplied, with an even larger percentage of projects located in the Northeast.[1]

Rediscount Department

The Rediscount Department is the first central banking entity that was added to the Banco do Brasil. It was established by law in November, 1920, and incorporated into the Banco do Brasil in 1921 as the first step toward making the bank into a central bank of issue; however, in 1926 when the issue privileges of the Banco do Brasil were removed, the Rediscount Department was closed.[2] In 1930, due to the added need for a lender of last resort, the Rediscount Department was reopened and has remained active since then.[3]

"The Rediscount Department (in its operations with commercial banks) is designed to give seasonal elasticity to the currency and is regarded as the lender of last resort for limited emergencies. The Department's loans to each bank cannot under law exceed the borrowing bank's capital and surplus."[4] Like many other economic

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[1]Banco do Brasil, Relatório de 1964, p. 31.

[2]Guimarães, p. 176.

[3]Kafka, p. 100.

[4]Ibid., p. 103. Due to the lack of a broad money market in Brazil, the lending of money to banks to maintain legal reserve requirements during seasons of high credit need (harvest and planting for agricultural regions), would tend to give the same effect as buying securities in open-

regulations in the past, this one has also been by-passed. The maximum maturity of the discounted paper is up to one year (in the case of agricultural loans); and the collateral must be treasury bills, except for loans to a department of the Banco do Brasil.

Bank Loans Fund

The Bank Loans Fund was also created during the depression and also as the "lender of last resort" but for unlimited emergencies. In 1931 the Fund was created to assist commercial banks suffering from heavy withdrawals, by liquidating the medium and long term loans that previously had been granted by the banks, especially agricultural loans. The Fund as well as the Rediscount Department obtains funds for such operations from the Federal Treasury. On the other hand, since 1942 all paper money has been issued by the Treasury to the Rediscount Department, except for issue by the Bank Loans Fund upon approval of the Superintendency of Money and Credit since 1945. These issues must be backed by 25 per cent gold or foreign exchange; however, recently "most issues of currency have been the result of Treasury borrowings from the General Credit Department; this, in turn, has been borrowed from the Rediscount Department, which was obtained from the

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market operations by the Federal Reserve System in the United States.

Treasury."[1] Special legislation then cancels these "family" debts. Under this arrangement, a large amount of the currency outstanding is the sole responsibility of the Treasury and therefore requires no backing of gold or international reserves.[2]

The centralized administration of both the Fund and the Rediscount Department, even though action is often begun through the branches of the Banco do Brasil, brings about delays in discounting, even on emergency loans.

Although not having the status of Department, the Fund does share a Director of the Banco do Brasil with the Rediscount Department.

Foreign Commerce Department

The Foreign Commerce Department was authorized in December, 1953, to replace the Export-Import Department which was organized during World War II to assist in the control of imports and in the promotion of exports. The operations of the original department consisted of the issue of import and export licenses plus some foreign trade financing. Except for the last operation, which was transferred to the General Credit Department,[3] the switch in departments appears to be not much more than a

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[1] Ibid., p. 103.

[2] Ibid.

[3] Banco do Brasil, Relatório de 1959, pp. 110-11.

change in name. As Brazil operated under a multiple exchange rate from 1953 to 1961, the actual control of exports and imports was influenced more by the actions of the Exchange Department than by regulations of the Foreign Commerce Department. In addition, coffee, which usually comprised well over one-half of exports in value, did not require an export license after 1953. Furthermore, the licensing operation did become much more detailed under the Foreign Commerce Department, as the entry of a combination multiple exchange rate and auction system for exports and imports, tied in with the licensing of the same, was almost concomitant with the change of department name.

Exchange Department

The Exchange Department was created in 1931 to perform the central bank function of operating the foreign exchange market and holding foreign exchange and gold balances for the National Treasury. Like the Foreign Commerce Department, the work load has grown appreciably because of the multiple exchange system initiated in 1953. This Department is also responsible for carrying out policies of exchange control, i.e., "de manter com rigor o contrôle de gastos em moedas estrangeiras, visando a possibilitar o desenvolvimento do comercio exterior dentro do orçamento cambial."[1]

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[1] Ibid., p. 66. Roughly translated, "of holding a close control over foreign exchange expenses, in view of development of foreign trade within the exchange budget."

Listed below are additional functions performed by the Exchange Department:[1]

1. Performance of financial operations between Brazil and the International Monetary Fund or Foreign Central Banks.
2. Acting as depository for gold and foreign exchange reserves of the National Treasury.
3. Operation of the agio system by accepting the money offered through bids for the right to import specific commodities, and by transferring the part of this profit on exchange required for the payment of export "bonuses."
4. Acting as financial agent for the Brazilian government in any international transactions.

Superintendency of Money and Credit

The Superintendency of Money and Credit (SUMOC) was not a part of the Banco do Brasil; however, it had taken over jobs previously assigned to the bank, and functioned as a coworker with it in certain operations. SUMOC contracted with different departments of the bank for the performance of jobs previously assigned to the bank, and initially the staff of SUMOC was almost exclusively drawn from the Banco do Brasil.[2]

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[1] Ibid., p. 66-75.

[2] Kafka, p. 101.

In February, 1945, because of the nation's concern over inflation, SUMOC was organized as an interim organization with the immediate purpose of maintaining control over the money market and preparing the way for the formation of a central bank. It was composed of a policy-making council and an executive with an advisory staff. The executive or Superintendent of SUMOC was appointed by the President of the Republic and worked directly under the Minister of Finance. The Council, presided over by the Minister of Finance, had the following members: the President of the Banco do Brasil, the Director of the Exchange Department, and as a de facto member, the Director of the Foreign Commerce Department. In effect, the monetary and fiscal policy of Brazil was determined and carried out by these men. One weakness, however, was that all of them were appointed by the President of the Republic, and were subject to removal by him at any time. It might be added, however, that except for the short period following the suicide of President Vargas in 1954, there has been a definite atmosphere of stability and "term permanence" at both SUMOC and the Banco do Brasil.

The following powers were exercised by SUMOC:[1]

1. Requesting the National Treasury to issue paper currency up to the maximum allowed by law.

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[1] Wythe, p. 284.

2. Receiving deposits of banks.
3. Fixing, when it deemed necessary, the interest rates to apply to new accounts by the banks, banking houses and salvage banks.
4. Fixing the monthly rates for rediscounts and interest on bank loans, different rates of interest being allowed, having in mind the regions and peculiarities of the transactions.
5. Authorizing the purchase and sale of gold or foreign exchange.
6. Authorising loans to banks for a term of not more than 120 days, backed by at least 90 per cent of value in securities of the national government.
7. Directing the inspection of banks.
8. Directing in general the policy of exchange and banking operations.
9. Promoting the purchase and sale of securities of the national government (open market operations).
10. Authorizing the rediscount of securities and loans of banks.

From the above list it can be seen that the issue and circulation of currency should have been under closer control since the formation of SUMOC in 1945; but paradoxically, over the subsequent twenty-five year period Brazil has experienced an internal inflation greater than over any other similar time period. The details and causes of this inflationary spiral will be covered later in Chapter 7 of this work.

Commercial Banking

There are a large number of independent deposit banks that are privately owned. Even though branch banking is practiced and allowed across state lines, none of these commercial banks approaches in size the General Credit Department of the Banco do Brasil. There is, however, a heavy concentration of deposits in a small number of banks, viz., in 1951 78 of the 403 commercial banks (head offices) held about 90 per cent of the deposits of all private domestic commercial banks in Brazil.[1] This concentration is increasing, due to the bank merger trend that has been encouraged by government through the extension of temporary tax advantages.[2] In fact, from 1944 to 1963 the number of commercial banks including branches increased from 2,420 to 5,923, while the number of head offices of banks decreased from 663 to 326.[3]

In 1941, the branches of foreign banks were eighty in number and were responsible for about 30 per cent of deposits and loans of commercial banks; however, their importance has been relatively small over the period of this study, and has been steadily declining. In both 1953 and 1963, there were only forty-four foreign branch banks,

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[1]Kafka, p. 67.

[2]Ibid., p. 72.

[3]IBGE, Anuário Estatístico - 1955, 1964, pp. 257, 228.

with less than 5 per cent of deposits and loans of commercial banks in 1953, and less than 3 per cent of each in 1963.[1] If the loans and deposits of the Banco do Brasil were included in the above figures, the percentages would be appreciably smaller.

In Brazil, with money in short supply and the demand for credit very high, the banker tends to select the borrower. His first choice is in the field of commerce and last choice in agriculture. Manufacturing is in the middle ground. Limits of credit are assigned to each creditor without respect to debits that the borrower may have with other banks.

The commercial bank's loan department usually limits itself to discounts and current account loans. In 1953 loans represented 35 per cent of the credit supplied; however, by 1963, as the result of a steady trend, discounts formed all but 11½ per cent of the credit supplied by commercial banks. Discounts are short-term, usually no longer than six months and are not renewable. Loans are normally for either six months or a year and often are renewable. Most of the current account loans are secured by a type of trade paper called duplicate, which is a copy of an invoice issued by the seller and accepted by the buyer. Legally it has "all the qualities of a bill of

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[1] Ibid., 1954, 1964, pp. 231, 228.

Table 5

Deposits and Credit of Deposit Banks[a] 1953-1963
(Balances at end of year in billions of cruzeiros)

Activity	1953	1957	1959	1961	1963
All Deposit Banks[b]					
Total deposits	146.1	348.1	529.6	1,183.4	3,448.0
Demand[b]	126.0	321.7	494.9	1,123.8	3,310.6
Time deposits	18.8	26.3	34.7	59.6	137.4
Banco do Brasil					
Total deposits	57.1	147.7	177.3	517.4	1,654.7
Demand[b]	49.0	145.7	173.3	513.0	1,606.7
Time deposits	1.9	2.0	3.9	4.4	48.0
Commercial Banks[c]					
Total deposits	80.9	188.5	334.0	632.5	1,700.6
Demand[b]	64.4	165.0	304.0	576.8	1,626.7
Time deposits	16.5	23.5	30.0	53.7	73.9
All Deposit Banks[b]					
Total loans	159.3	371.9	504.2	1,277.8	3,575.7
Current account	87.8	218.6	241.8	706.6	2,086.4
Mortgage	2.9	3.3	8.9	5.3	7.7
Discounts	68.6	150.0	258.5	565.8	1,481.6
Banco do Brasil					
Total loans	74.8	204.9	231.6	765.1	2,329.7
Current account	59.1	179.4	189.6	628.5	1,943.6
Mortgage	-	-	-	-	-
Discounts	15.7	25.6	41.9	136.6	386.2
Commercial Banks[c]					
Total loans	78.1	158.2	257.8	488.3	1,188.1
Current account	24.7	34.7	45.7	68.6	131.0
Mortgage	2.9	3.3	3.9	5.3	7.7
Discounts	50.5	120.2	208.2	414.4	1,049.5

[a] Savings banks are excluded.

[b] And short-term deposits.

[c] Does not include foreign branch banks in Brazil.

Sources: IBGE, Anuário Estatístico do Brasil - 1954, 1960, 1964, pp. 156-57, 229-32, 232-33.

exchange."[1] Discounts usually consist of duplicates although sometimes bills of exchange or promissory notes are used.[2]

The banking competition is for deposits through the payment of interest on demand deposits up to 5 per cent; the smaller and newer banks tend to pay higher interest rates, usually the maximums allowed (or more). The interest or discounts charged by the lending bank is tied rather closely to the bank's rate of interest on demand deposits; hence the larger banks usually charge lower rates of interest. But as the loan market is a seller's market, the small banker has no difficulty lending money at the higher rate of interest.[3]

Not even during the depression of the 1930's has Brazil ever experienced a siege of bank failures as evolved in the United States during that period. Moreover, it has never experienced any type of deposit insurance for demand or short-term deposits of commercial banking institutions. This may be attributed to a combination of the overly

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[1]Kafka, p. 62.

[2]Ibid., p. 80.

[3]Ibid., pp. 83-84. For the same period of time in the United States the percentage of vault cash to total reserves for all commercial banks or for member banks has been about 15 per cent in comparison to 37 per cent in Brazil. The variation of percentages of vault cash to total reserves has ranged from 1½ per cent in the United States to 5 per cent in Brazil.

generous loans by the monetary authorities as well as the confidence the population has in government support of the banking system.

All bank charters are issued by the Ministry of Finance. Commercial banks usually operate under charters of broad scope, allowing them to have savings as well as checking accounts, to engage in almost any type of banking operation, including investment banking, and to hold any type of asset, including real estate, corporate bonds, and shares.[1] Only a very small number of commercial banks are chartered to issue mortgage certificates; the majority of this business is handled by savings banks.

Brazilian commercial banks are subject to two reserve requirements. Since 1932 a reserve of 15 per cent of short-term deposits (at sight and up to ninety days) and 10 per cent of time deposits (in cash or in a freely available deposit carrying 1 per cent interest with the Banco do Brasil) is required of all private commercial banks. The second reserve applies to the same commercial banks and to the Banco do Brasil, which is not subject to the first reserve requirement. This requirement was initiated in 1945 by SUMOC, and orders that the banks maintain on deposit without interest, with the Banco do Brasil for the account of SUMOC, 8 per cent of short-term deposits and 4

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[1] Ibid., pp. 70-71.

per cent of time deposits. These amounts may be varied up or down 75 per cent by the monetary authorities.[1]

Usually banks maintain about 37 per cent of total reserves in cash, with banks of the interior keeping larger percentages of vault cash than city banks. This large amount of vault cash is necessary because of the shortage of excess reserves in almost all private banks as well as in the Banco do Brasil, which usually keeps only from 6 to 8 per cent of total reserves in its vaults. This situation is the result of the high comparative cost of maintaining deposits, plus the profit-making drive of the commercial banking side of the Banco do Brasil. It may also be added that, as the Banco do Brasil is not a central bank, it is not allowed to keep unissued notes in its vaults; hence there are added delays for rediscounts or emergency loans from the Rediscount Department and the Bank Loans Fund. The lack of a secondary reserve requirement and the almost lack of a money market in Brazil are additional arguments for large holdings of vault cash by the commercial banks.

Savings Banks

There are no private savings banks in Brazil; however, there are both state and federal savings banks, and there

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[1] Ibid., p. 76. Concomitantly in the United States, the percentage of vault cash to total reserves for all commercial banks was about 15 per cent in comparison to Brazil's 37 per cent.

are time deposits in the Banco do Brasil and in the commercial banks. The largest and most important savings bank system is that of the Federal Savings Banks. This system is under the broad control of the Ministry of Finance. There are twenty-two district headquarters in each state and in the Federal District, with a high degree of autonomy in each district.[1] Included in the system in 1962 were 333 regular agencies and 153 postal savings agencies.[2]

In 1953 the deposits of savings banks represented about 25 per cent of those of commercial banks; however, this was reduced to only about 10 per cent in 1962; in like manner time deposits in commercial banks dropped from 18 per cent to slightly over 4 per cent of total commercial bank deposits over the same period. The ten years of fairly rapid and galloping inflation in Brazil is responsible for this shift from long-term to short-term savings, as the principal owner of time deposits is the middle class salaried worker who is hurt more by inflation than the merchant or manufacturer who concentrates on short-term and demand deposits.

The savings banks accounted for about 80 per cent of real estate mortgage loans; and this type loan represented about 60 per cent of their loan portfolio over the 1953

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[1]Kafka, pp. 92-94.

[2]IBGE, Anuário Estatístico - 1964, p. 248.

through 1963 period. The deposits in federal and state savings banks are fully insured by the federal and state governments, respectively.

Chapter 2

THE TAX SYSTEM

Brief Tax and Fiscal History

The initial constitution of 1891 reserved to the federal government all taxes considered to be of national character and to the states those taxes on property and business which were considered to be local. In effect, the federal government was given the exclusive right over taxes on exports and imports from the federal area and on consumption (excise) taxes. The states were given exclusive rights over property tax and on business licenses. As there were only these specific regulations, the federal, state, and municipal governments were left free to levy any other taxes. And there was no restriction on the overlapping of taxes by federal and state governments.

Income tax was initiated in 1922. In 1930, during the world depression, President Vargas suspended the 1891 constitution, and in the new constitution had the income tax reserved for the federal government and the sales tax for the states. For the first time, municipalities were given exclusive tax privileges--property taxes as well as professional licenses and amusement taxes. Municipalities were also granted 50 per cent of the state

business taxes.[1] A constitutional regulation was passed requiring any taxes that are not exclusive to be divided between the federal, state, and municipal governments involved, by a definite formula determined by the type tax and municipality involved, the larger percentage going to the smaller and poorer municipalities. This regulation eliminated the overlapping of any specific type of tax per se.[2]

Although recent statistics show that the value added by manufacture is greater than the value of Brazil's agricultural production, Brazil is still basically an agricultural country with more than half (63 per cent in 1961) of the employed population engaged in agricultural activity, provided household service is omitted. In addition, its exports are predominantly agricultural while its imports are chiefly manufactures combined with petroleum and petroleum products. In essence, Brazil of 1953 may be summed up as a country on the economic periphery, having a high import coefficient along with an external debt the equivalent of about 227 million U. S. dollars, slightly over half of which is in dollars owed to the United States. This does not include the more than 300

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[1]Henry J. Gumpel and Rubens Gomes de Souza, Taxation in Brazil, Harvard Law School World Tax Series (Boston-Toronto: Little, Brown and Co., 1957), pp. 6-7.

[2]Ibid., p. 22.

millions dollars owed by Brazilian entities on loans from the World Bank, Export-Import Bank, and commercial banks, all of which were guaranteed by the government of Brazil, nor the commercial arrears owed to exporters, chiefly in the United States.

It might also be pertinent to note that in 1953 there was an internal federal debt of 10.45 billion cruzeiros along with state and municipal debts of 15.16 and 2.39 billion cruzeiros, respectively. At the same time Brazil had a national income of 336.5 billion cruzeiros, of which 84.65 billion cruzeiros were used by the three levels of government.[1]

A very important factor is that from 1910 through 1963, the federal government of Brazil has shown a budget deficit in all but six years--1927, 1928, 1947, 1948, 1951, and 1952. However, if the aggregate finances of federal, state, and municipal governments are taken for the same period, every year showed a deficit except two--1944 and 1951. These debits have been covered by new currency issues.

The constitution provides that except for customs duties or taxes levied in time of war, no taxes shall be imposed unless authorized by law and that none shall be collected in any fiscal (calendar in Brazil) year unless

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[1]IBGE, Anuário Estatístico do Brasil - 1955, pp. 594, 350, 522.

previously authorized by the budget.[1] and as the deadline for the budget is November 30 of the preceding year, there is usually quite a rush to get congressional approval of the budget by the end of the calendar year. The intent of this law is to prevent any new taxes instituted after budget approval to become operative during the tenure of that budget. As retroactive legislation is prohibited, the goal of the above law has been successfully consummated.

Current Tax System

Division of Tax Revenue between Political Units

Before presenting a detailed discussion of any specific tax, an attempt will be made to give a flash picture of the relative importance of: (1) federal, state, and municipal taxes; (2) direct and indirect taxes; and (3) the important types of taxes of each category. Here the importance will be determined solely by relative size of the revenue.

In 1940 the relative size of federal, state, and municipal revenue was 57 per cent, 33 per cent, and 10 per cent, respectively.[2] Since then there has been a gradual increase in the relative strength of state taxes. The proportions of taxes as collected in 1960 were 43 per cent

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[1] Gumpel, pp. 21, 28.

[2] IBGE, Anuário Estatístico do Brasil - 1955, p. 522.

federal, 48 per cent state, and 9 per cent municipal;[1] the comparable proportions for the United States were 68 per cent federal, 16 per cent state, and 16 per cent local.[2]

The relation between direct and indirect taxes from 1940 to 1960 has shifted from a one to three ratio to a one to four ratio, with direct taxes holding the short end. However, if the federal, state, and municipal taxes were studied separately for their composition, one would find that in 1960 both the municipality and the federal taxes were composed of about 34 per cent direct taxes, while direct taxes accounted for only about 8 per cent of state taxes. For the United States, about 58 per cent of all taxes and 80 per cent of federal taxes are direct.

Although statistically the above relations between direct and indirect taxes have continued through 1960, there is another important source of federal revenue which was initiated in September, 1953, and terminated in April, 1961; however, it was not shown as a tax although it may very well have been considered as a type of fee or tax. This is the extra premium or agio that was paid for getting an import license.

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[1]Banco do Brasil, Relatório de 1961, p. 247.

[2]Bureau of the Census, United States Department of Commerce, Statistical Abstract of the United States - 1965, 86th Annual Edition (Washington: U. S. Government Printing Office, 1965), p. 420.

Henry Gumpel, in the Harvard Law School publication, Taxation in Brazil, stated that: "The excess of import premiums over export bonuses is sizeable and in 1954 contributed one-third of the total federal income."[1] But upon checking Table 6, it can be seen that customs duties account for only 5.9 per cent of the federal tax receipts for that year. The reason for this discrepancy can be found in the system used in recording this payment. In International Financial Statistics[2] this item is entered in a special government account as "Profits on Exchange." Under the "Monetary Authorities" report, it is considered as a negative account of "Foreign Assets," i.e., instead of the Brazilian resident receiving exchange for this transaction, the portion paid by him in excess of the official exchange rate is considered as a loss. But the books will balance because: (1) the local currency paid for the license over the official exchange rate does not leave Brazil, as it is only transferred from a Brazilian importer to the federal government; and (2) the positive entry of "Profit on Exchange" will equalize the negative entry of "Foreign Assets." If this were considered as a special excise or import tax, then there would be an additional

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[1]Gumpel, p. 20.

[2]International Monetary Fund, International Financial Statistics, Volume X, No. 2 (Washington: International Monetary Fund, 1957), p. 59.

Table 6

Federal Tax Revenues of Brazil
1950-1963
(in percentages of federal tax)

Year	Customs	Excise	Income	Stamp	Other
1950	10.8	40.1	37.0	12.1	-
1951	12.8	37.6	37.0	12.6	-
1952	10.4	36.8	40.3	12.5	-
1953	5.5	39.0	42.0	13.5	-
1954	5.9	39.5	41.5	13.1	-
1955	4.7	38.1	39.8	13.3	4.1
1956	3.2	39.4	40.2	13.4	3.8
1957	3.6	43.9	37.0	13.0	3.4
1958	12.7	40.1	31.2	11.8	4.2
1959	13.6	38.4	33.0	12.8	2.1
1960	11.2	42.4	31.6	13.0	1.9
1961	12.6	43.4	29.6	12.8	1.5
1962	13.1	46.1	26.0	13.7	1.1
1963	10.3	48.2	28.8	10.8	1.9

Source: Banco do Brasil, Relatório de 1958, 1961, 1964 (Rio de Janeiro: Gráfica Editora Livro, S. A., 1959, 1962, 1965), pp. 115, 248, 310.

14.3 billion cruzeiros indirect tax added to the federal revenue of 46.5 billion cruzeiros.[1] The increase in value over the 1954 estimate for this type of revenue would be appreciable for the year 1960, when the average agio was over triple that of 1954, or at about 220 cruzeiros per U. S. dollar, while the same official rate of exchange existed. A more detailed explanation of some of the facets of this operation will be made later.

Federal taxes

The approximate comparative importance of each exclusive federal tax in 1961 is as follows:[2]

Income and excess profits	30 per cent
Excise and imposto único[3]	43 per cent
Stamp	13 per cent
Customs duties	13 per cent
Exchange remittance	1 per cent

The federal government also receives 20 per cent of revenue from nonexclusive taxes collected by the states. The federal government allocates to the municipalities, except state capitals, 10 per cent of income tax and part of the 60 per cent of imposto único which is split between the state and the municipality, depending on the size and income of the latter.

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[1] Banco do Brasil, Relatório de 1955, p. 74.

[2] Ibid., 1961, p. 248.

[3] Cf. infra, p. 58.

State taxes

The exclusive state taxes are:

1. Rural land tax
2. Real property transfer tax
3. Inheritance tax
4. Sales tax
5. Export tax
6. Stamp tax

The sales tax is the only state tax of any appreciable value. The rate ranges from 1.4 per cent to 8 per cent on the sale, depending on the state. In all states but Amazonas, which collects 8 per cent sales tax only once per article, this tax is imposed each time an article is sold. In 1959, sales tax represented over 65 per cent of taxes collected by the states.[1]

Municipal taxes

Following is a list of municipal exclusive taxes:

1. Improved real property tax (urban)
2. License tax
3. Business and professional tax
4. Amusement tax
5. Stamp tax

The business and professional tax and the tax on improved real property are much larger than any of the

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[1]IBGE, Anuário Estatístico do Brasil de 1960, p. 347.

other municipal exclusive taxes and comprised 31 1/2 and 27 per cent, respectively, of exclusive taxes, and 19 1/3 and 16 2/3 per cent of total municipal revenue.

The business and/or professional tax is a franchise tax on any individual or entity carrying on any industrial, commercial, or professional activity. It applies whether or not a profit is realized. The methods of assessment vary greatly from one municipality to another. Usually the tax is determined on a dual basis--as a percentage of rent paid on business premises combined with either (1) a fixed amount or (2) a percentage of annual turnover. Sometimes a period of exemption from this tax is given as an inducement to new industry.[1]

Municipal tax rates on improved real property vary greatly from one city to another, but are usually highest in the larger cities, where they range from 6 to 10 per cent of rental value. This is charged regardless of whether or not the property is rented. For instance, in Sao Paulo, the largest city of Brazil with a population of over four million in 1963, the rate on business property or leased property is 10 per cent, while the rate on a residence occupied by the owner is 8 per cent.[2]

In addition to the exclusive municipal tax on improved real property, most states and municipalities levy

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[1]Gumpel, pp. 83-84.

[2]Ibid., pp. 68-69. This is similar to the home owner's exemption in some states of the United States.

fees for water, sewerage, pavement, and road maintenance. As these are fees and not taxes per se, there is overlapping of the same or similar fees on one piece of property by both state and municipality. Even though both entities usually charge fee rates based on rental value (which is the determinant of the urban tax on municipal real property), the courts usually have upheld the right to assess as fees.[1]

It might be apropos to mention here that in many of the smaller towns the extra income allotted to them by the federal government from income tax and excise tax on petroleum, minerals, and electricity (imposto único) amounts to more than the total taxes collected by the municipalities.[2] And as this still was not enough to pay for all needed expenses, in 1954 a new law provided an additional 10 per cent of income tax collected from the area as an allotment to the smaller municipalities to help pay for elementary and secondary schools, which are compulsory in Brazil. This action was found necessary to combat illiteracy, which is very high in the sparsely settled areas in the interior. Not more than one-third of all Brazilian children ever go to school, and of those that do, only 10 per cent go beyond the third grade.[3]

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[1] Ibid.

[2] Ibid., p. 45.

[3] Marion Gantler and George L. Hall, Understanding Brazil (River Forest, Illinois: Laidlaw Brothers, 1962), p. 50.

More Detailed Study of Certain Taxes

Now that the over-all background of the Brazilian tax system has been outlined, a more complete picture of the income tax, both business[1] and individual, along with the revenue derived from imports and exports, will be presented.

Individual Income Tax

Residents of Brazil are subject to taxes according to type of income derived. Taxes payable are divided into two general classifications: (1) proportional rates and (2) progressive rates. The proportional rates or flat rates vary in relation to the source of revenue and are calculated on the total net income in six categories. The progressive taxes are assessed on all income, regardless of whether or not the schedular tax is also assessed on all or part of the income. The new progressive income tax was passed over the President's veto on October 2, 1956.[2]

Proportional taxes

Following are the six categories of proportional taxes, with the rates for each:[3]

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[1]The term "business" is used instead of "corporate" because of the very broad coverage of this type of tax in Brazil.

[2]Walter H. Diamond, Digest of Brazilian Taxes and Business Organizations (Albany-New York City: Matthew Bender and Co., Inc., 1956), pp. 6-A, 15.

[3]Estados Unidos do Brasil, Imposto de Renda, Decreto No. 40,702-DE 31-12-56, Decreto No. 40,384-DE 19-11-56 (Rio de Janeiro: Departamento de Imprensa Nacional, 1957), pp. 3-6, 11.

Schedule A. Income from registered federal, state, and municipal government securities, except those specifically tax-exempt, is taxed 3 per cent.

Schedule B. Income from personal property and capital assets, except government bonds, is taxed 10 per cent.

Schedule C. Income from the exercise of any employment, position, or fiscal duties, including directors and members of a commercial firm when remuneration is by a fixed salary charged to general expenses of the firm, is taxed 1 per cent. This also includes non-salaried employees when the annual payment does not exceed 20 per cent of the paid-in capital of the corporation or 60,000 cruzeiros,[1] and annual payments to directors that do not exceed 20 per cent of paid-in capital or 120,000 cruzeiros. Any payments in excess are taxable as part of the firm's net profit. In the case of proprietors or partners, the remuneration under Schedule C may not exceed 30,000 cruzeiros annually, if capital contributed by recipient does not exceed 150,000 cruzeiros. When capital investment is greater, 20 per cent may be withdrawn up to a maximum of 120,000 cruzeiros. For partners who have contributed nothing to the capital of the organization, 10,000 cruzeiros a month may be drawn out

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[1]The free-market value of the cruzeiro in U. S. currency varied from two U. S. cents in 1953 to less than 1/5 of one cent in 1963.

under Schedule C. Up to 120,000 cruzeiros annual bonus may also be included under Schedule C.

Schedule D. Income from other occupations such as professional fees, payments for noncommercial services, agents' commissions, representatives' commissions, and brokerage fees is taxed 2 per cent.

Schedule E. Income derived from real property, such as rent and leases, is taxed 3 per cent.

Schedule H. Income from lucrative occupations not mentioned in the previous schedules are taxed 5 per cent.

Progressive taxes

The progressive tax on taxable income is computed by use of Table 7. Exemptions are similar to those of the United States, except that in 1955 the taxpayer had an exemption of 50,000 cruzeiros, the spouse had an exemption of only 30,000 cruzeiros, and exemptions of 15,000 cruzeiros were allowed for each minor or invalid child and unmarried or widowed daughter without support. An unusual exemption allowed is up to 10,000 cruzeiros for life insurance premiums, not to exceed one-sixth of annual income.[1]

Additional taxes on individuals

Other taxes levied on individuals are:

1. Taxes on sale of real property. Individuals are taxed 10 per cent on profits from the sale of real property.

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[1]Diamond, pp. 18, 22-A.

Table 7

Rates of Progressive Individual Income Tax*

Taxable Income	Tax Rate
Up to 60,000 cruzeiros	-
61,000 cruzeiros to 90,000 cruzeiros	3%
91,000 cruzeiros to 120,000 cruzeiros	5%
121,000 cruzeiros to 150,000 cruzeiros	8%
151,000 cruzeiros to 200,000 cruzeiros	11%
201,000 cruzeiros to 300,000 cruzeiros	14%
301,000 cruzeiros to 400,000 cruzeiros	18%
401,000 cruzeiros to 500,000 cruzeiros	22%
501,000 cruzeiros to 600,000 cruzeiros	26%
601,000 cruzeiros to 700,000 cruzeiros	30%
701,000 cruzeiros to 1,000,000 cruzeiros	35%
1,001,000 cruzeiros to 2,000,000 cruzeiros	40%
2,001,000 cruzeiros to 3,000,000 cruzeiros	45%
Over 3,000,000 cruzeiros	50%

*Rates for the years 1957-1959 per Law No. 2,862 of September 4, 1956.

Source: Estados Unidos do Brasil, Imposto de Renda, Decreto No. 40.702 de 31-12-56, Decreto No. 40.304 de 19-11-56 (Rio de Janeiro: Departamento de Imprensa Nacional, 1957), pp. 11-12.

This tax levy is a legal prerequisite for the completion of the sales transaction. In addition to normal deductions for improvement and commissions, there is a certain percentile deduction allowed, depending on the length of time between acquisition and sale of the property. This deduction is 10 per cent of the profit if the time is less than two years, 15 per cent if between two and five years, 25 per cent between five and ten years, and 30 per cent when greater than ten years.

2. Taxes on interest and dividends of bearer securities. On any government bearer securities there is a 6 per cent tax on interest and 20 per cent on dividends. On industrial securities the tax is 20 per cent on both interest and dividend payments.

3. Tax on registered government (federal, state, and municipal) bonds. The tax on interest earned here is 3 per cent.

4. Special refundable loan on individual income.[1] A surcharge on all individual tax payments over 20,000 cruzeiros is applied to all resident taxpayers, per the following rates:

Amount of income tax	Addition
More than 20,000 cruzeiros but not more than 250,000 cruzeiros	15%

[1]Gumpel, p. 228.

Amount of income tax (continued)	Addition
More than 250,000 cruzeiros but not more than 1,000,000 cruzeiros	20%
More than 1,000,000 cruzeiros	25%

This additional charge is actually not a tax but an enforced subscription to the Brazilian Economic Development Program, which is now being carried out as recommended by the Joint Brazil-United States Development Commission. The payments made are refunded to the taxpayer after five years in the form of 5 per cent federal bonds together with an interest payment representing 25 per cent of the premium. The bonds will then mature in 20 years after payment of 20 equal yearly installments of 5 per cent each, starting with the year after the issue of the bonds.[1]

5. Income tax on non-resident individuals. All income arising from national sources to non-residents (residents absent from Brazil for more than 12 months) is subject to tax deduction, at the source, at the rate of 20 per cent. This includes taxes on bonds, securities, rent, property sales, etc; the only exception is income on royalties, which is withheld at the rate of 25 per cent. Exemptions from this non-resident tax are: (1) Brazilian government

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[1]Actually the taxpayer tended to lose purchasing power because of the "current normal" 20 per cent per annum inflation of the cruzeiro followed by an average of about 50 per cent a year from 1959 through 1963.

employees and students living outside of Brazil; (2) commissions paid by Brazilian exporters to their agents abroad; and (3) commissions paid by Brazilian shipping entities to their agents abroad for services rendered.[1]

6. Individual tax increases under the "Law for the Protection of the Family."[2] Following are increases to the income tax, provided that the tax was not withheld at the source: 15 per cent for male taxpayers over twenty-five years of age who are either unmarried or widowed without children; 10 per cent for married taxpayers over twenty-five years of age without children; 5 per cent for taxpayers over 45 years of age with one child only.

7. Income tax on foreigners working in Brazil for a period of less than 12 months. If the employee is working in Brazil but paid from abroad there is no income tax, but if he is paid by a Brazilian firm, there is a 20 per cent withholding tax as in "5" on non-residents. If either of the above remains in Brazil for a period longer than 12 months, the former will then be retroactively taxed at the progressive tax rate, while the latter will be taxed under Schedule C of the proportional taxes as outlined on page 60 of this study.

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[1]Gumpel, pp. 227-28.

[2]The effective date for determining the age is April 30 of the year the return is due, not the base year.

8. Inheritance and gift taxes. Both of these taxes are collected at the state level. Although the rates vary with each state, the following system of rate determination is common to all states. Both inheritance and gift taxes are computed on the net market value when the property passes to each beneficiary. The rates are graduated according to a combination of two factors: (a) the net value of assets received, and (b) the degree of absence of family relationship between the decedent or donor and the beneficiary.[1] Table 8 gives the complete rates of inheritance tax and the "descending or ascending lines" (e.g., father to son or parent) rate for gift taxes in the state of São Paulo. These rates are slightly higher than those of the other states. There is quite a difference between the rates of the non-relatives and the close family both at the top and bottom of the value of assets, e.g., from 25 per cent to 64 per cent rate on inheritance tax at the top value, and a range of 2 to 37 per cent at the lowest value. Gift tax ranged from 8 to 37 per cent in the lowest value bracket. There is usually an increase in the tax if the heirs are non-residents of Brazil; in São Paulo the rate is increased by about 20 per cent for this reason.

Of significance here is the fact that real estate transfer is not subject to the gift tax, although it is

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[1]Gumpel, pp. 74-77.

Table 8

Percentage Rates of Inheritance and Gift Tax in State of São Paulo

Family Relationship	Net value of estate in 1,000 cruzeiros									
	20	50	100	250	500	1000	2500	5000	10000	10000+
Descending or ascending lines[a]	8	10	12	15	18	21	24	27	30	35
Descending or ascending lines[b]	2	4	6	8	10	12	14	17	20	25
Spouses	8	10	12	15	18	21	24	27	30	35
Brothers	25	28	31	34	37	40	43	46	49	52
Uncles or nephews	28	31	34	37	40	43	46	49	52	55
First degree cousins	31	34	37	40	43	46	49	52	55	58
Other cousins	34	37	40	43	46	49	52	55	58	61
Strangers	37	40	43	46	49	52	55	58	61	64

Notes: The tax is not graduated and all property falling into a given bracket is taxed at the rate applying to that bracket. Example: If a son receives an inheritance of a net value of 30,000 cruzeiros, the tax is 4 per cent on 30,000 cruzeiros and not 2 per cent on the first 20,000 cruzeiros plus 4 per cent on the excess 10,000 cruzeiros. If an heir receives his share of the estate and, in addition thereto, a bequest, the net values of both are combined to determine the applicable rate.

[a]Gift tax only.

[b]Inheritance tax only.

Sources: Henry J. Gumpel and Rubens Gomes de Souza, Taxation in Brazil (Boston-Toronto: Little, Brown and Company, 1957), p. 76; and Walter H. Diamond, Brazilian Taxes and Business Organization (Albany-New York City: Matthew Bender and Co., Inc., 1956), p. 56.

subject to the inheritance tax; therefore, if the property is transferred inter-vivos, the applicable tax would be the state property transfer tax--always less than 10 per cent--which is much smaller than the causa-mortis or inheritance tax. The above is probably the reason why the amount of tax revenue received from inter-vivos transfers of property is almost five times as great as the amount received from inheritance taxes.

Tax payments

Married taxpayers who live in a state having community property laws must file a joint return in the name of the husband. All incomes, including those of wife and children, must be included in this one return. This regulation is to prevent income splitting in the progressive tax. The wife, however, may still file a separate return after complying with the above; but it is not possible for the husband to do so.

Tax returns are due between January 1 and April 30; but taxes on individual incomes are not due until June 1 or twenty days after receiving the notice advising the taxpayer of the correct amount due. If larger than 500 cruzeiros, the tax may be paid in as many as four installments at monthly intervals. The law also provides for a discount if the tax is paid with the return, e.g., 5 per

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[1] Ibid., pp. 250-252.

cent if made in January, 3 per cent in February, and 1 per cent in March.[1]

All companies must withhold individual income taxes on monthly wages between 4,167 cruzeiros and 10,000 cruzeiros (1956-1958). There is no deduction from this type of payment.[2]

Summation

Except for taxes subject to withholding at the source, no individual has a payable tax, either proportional or progressive, if his total annual taxable income is less than 60,000 cruzeiros. But if a person is a partner or owner of a corporation and files as an entity, he does not have to pay tax unless his entity has shown a profit of more than 300,000 cruzeiros regardless of whether or not he has any capital in the enterprise.[3] Because of this higher protective ceiling against business income taxes, there has been a great transformation of individual taxpayers into "juridical persons"; for this reason, a real study of the income tax system in Brazil would not be complete without a cursory look into the business income tax structure. In fact, an appraisal of the individual income tax system will be withheld until completion of this income tax survey. The

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[1]Estados Unidos do Brasil, Imposto de Renda, p. 51.

[2]Diamond, p. 44.

[3]Ibid., p. 56-D. These figures are for the years 1957-1959.

evaluation of the inheritance and gift taxes will also be delayed until the final conclusions.

Business Income Tax

Who pays business taxes?

In accordance with Brazil's civil code a "juridical person of the private law" pays business taxes; and a juridical person of the private law represents for income tax purposes all incorporated or unincorporated entities except public corporations, e.g., federal, state, and municipal governments. This juridical person also includes partnerships and proprietorships. There is no difference in the type of tax between the several types of business organizations in Brazil.[1]

Basic business income tax

All juridical persons are subject to a basic income tax of 15 per cent up to 500,000 cruzeiros and 20 per cent for income over 500,000 cruzeiros.[2]

Excess profits tax

All juridical persons are subject to an excess profits tax on income greater than any of the profits designated in Table 9. This tax is paid in addition to the basic business income tax.

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[1]Gumpel, p. 92.

[2]Diamond, pp. 56-A, 56-B.

Following are the rates for the excess profits tax which apply equally to foreign and Brazilian companies:

Table 9

Excess Profits Tax

Amount of Profit	Tax Rate
Up to 50 per cent more income than the base	20%
50 to 100 per cent more than base	30%
100 to 200 per cent more than base	40%
Over 200 per cent of base	50%

Source: Walter H. Diamond, Digest of Brazilian Taxes and Business Organizations (Albany-New York City: Matthew Bender and Co., Inc., 1956), p. 56-C.

For calculating the Excess Profits Tax referred to in Table 9, the taxpayer may select any of the following three methods to determine the tax base:

1. By taking 30 per cent of "capital effectively applied" (which means paid up capital plus undistributed profits and reserves, except those for contingencies).

2. By using a sum equal to double the average profit of the three year period 1947-1949.

3. By taking the figure equal to the sum of the following percentages of the gross annual income of the firm: (a) 6 per cent of the first 3,500,000 cruzeiros; (b) 5 per cent of the next 1,500,000 cruzeiros; and (c) 4 per cent of all gross income over 5,000,000 cruzeiros.

Exemptions

There is a 300,000 cruzeiro exemption that is applicable both to the basic and the excess profits tax, hence any part of the excess profits tax that would serve to place the profit after taxes under 300,000 cruzeiros would not be collected.

Tax on capital increases of the firm[1]

Because of the tremendous difference between the calculation of the base at current prices and at the recapitulated value of the base after making allowance for inflation of the cruzeiro since the acquisition of assets, the government has set up a schedule for revaluing assets. Table 10 presents the schedule in operation for the tax year 1959.

In order to compensate for allowing the excess profits tax base to be raised by the multiplication factors shown in Table 10, the following federal tax is assessed on recapitulation of assets:

1. Profits or other income resulting from recapitulation of fixed assets are taxed 10 per cent.

2. Profits or other income resulting from incorporation of taxable reserves are taxed 12 per cent.

3. A 15 per cent surcharge is imposed on both these taxes, effectively making each a tax of 11.5 and 13.8 per cent, respectively.

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[1]Diamond, pp. 56-C, 56-D.

Table 10

Determination of Excess Profits Tax Base in 1959

Time Assets Were Acquired	Multiplication Factor
Before 1939	13.00
1939	12.70
1940	12.00
1941	10.30
1942	8.70
1943	7.30
1944	6.50
1945	5.60
1946	4.90
1947	4.60
1948	4.20
1949	3.80
1950	3.40
1951	2.80
1952	2.50
1953	2.20
1954	1.70
1955	1.50
1956	1.30
1957	1.10
1958	1.00

Source: Estados Unidos do Brasil, Imposto de Renda, Lei no. 3470 de 28-11-58 (Rio de Janeiro: Departamento de Imprensa Nacional, 1960), pp. 142-43.

Summation

If there were a choice between individual and business income tax, it could be shown that the business tax is much lower, especially if there is an excess profits tax because of (1) the much higher corporate exemption--300,000 cruzeiros compared with 50,000 cruzeiros--and (2) the lower corporate rate for the income above 300,000 cruzeiros. And the profit rates allowable are quite high, especially on older companies that can use the "normal" allowed rate for the three prior years, 1947-1949, in determining the export tax base, regardless of how high the "base" profit actually was. After assets are readjusted, the total extra tax assessed for the year of the readjustment will usually be only the 11.5 per cent or 13.8 per cent, which is much lower than the 18 to 50 per cent on the individual income tax scale. It can easily be seen why such a large number of taxpayers in the higher income brackets use the business tax.

This tax shift is aided by the lack of incorporation or even partnership requirements. Even though the income tax appears to be rather high for underdeveloped countries, its effect is much less than first appearance seems to indicate. The low tax return is a result of several factors: (1) the very low income per capita in Brazil;[1] (2) the

[1] G. F. Loeb, Industrialization and Balanced Growth with Special Reference to Brazil (Groningen, The

resultant trend of directing private investment capital to real estate where the schedular tax is from 3 to 10 per cent; (3) the high exemption on business income taxes; and (4) the additional tax exemptions allowed by the re-evaluation of assets, brought about by inflation. The fact that income tax reached its peak of 42 per cent of federal taxes in 1953, under an apparently lower progressive and much lower excess profits tax than the system initiated in January, 1957, and steadily decreased in relative value to 26 per cent of federal taxes in 1962, appears to give credence to the multiple effects of factors mentioned above as partial causes of the lower proportional value of income tax as a source of revenue in Brazil. In an attempt to add credence to this argument, a brief history of the income tax changes, along with the concurrent changes in relative values is presented for this period.

By referring to Table 6, it can be seen that the progressive part of the personal income tax was raised from 40 to 50 per cent in January, 1955;[1] but the relative

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Netherlands: J. B. Wolters, 1957), pp. 73-75. Gustaaf Loeb states that in 1955 the annual per capita income was only 9,400 cruzeiros, or the equivalent of U. S. $215 (converted at 44 cruzeiros per U. S. dollar) compared with U. S. $1,840 in the United States and the equivalent of U. S. $740 in France.

[1]Oswaldo Duarte Pereira, Vade-Mecum Forense, Coletanea de leis do Brasil, 4ª Edição (Rio de Janeiro: José Konfino, 1955), p. 1605.

value of income tax dropped from 41.5 per cent in 1954 to 39.8 per cent in 1955. The addition of the excess profits tax in 1956 probably accounted for the small rise in percentage of income tax to 40.2 per cent. The effect of the excess profits was more than cancelled by the change from specific to ad valorem tax rates for excise taxes in 1957 and for customs taxes in 1958;[1] so after 1956, the relative value of income tax dropped from 40.2 per cent in 1956 to 26.0 per cent in 1962, despite the fact that the progressive income tax rates had been delayed in keeping current by the rapid increase in inflation over the period. An attempt to alleviate this delay was made by tying the income tax laws with the minimum wage laws.[2] This was accomplished by representing the different brackets of taxable incomes by multiples of the highest minimum monthly wage in the country[3] (usually of the city of Rio de Janeiro). The subsequent delay in making the cost of living surveys, however, still causes higher taxes at lower real wages than initially intended.

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[1]Gertrude E. Heare, Brazil: Information for United States Businessmen, U. S. Department of Commerce (Washington: U. S. Government Printing Office, 1961), pp. 155, 180.

[2]Legislação Federal, No. 151-152, Fasc. 7 e 8, Julho e Agosto, 1963, Ano 14, "Novo Regulamento do Imposto de Renda, Decreto No. 51,900 de 10-4-1963" (Rio de Janeiro: Ministério da Fazenda, 1963), p. 10.

[3]Heare, p. 179.

In October, 1961, the maximum rate of personal income was increased to 60 per cent; however, the rates on the lower income brackets were lowered, thereby merely causing a more progressive tax with little or no increase in revenue.[1] There was a rise in the relative value of income tax in 1963 from 26.0 to 28.8 per cent as an apparent result of the rise in the individual income tax rates to a minimum of 65 per cent of tax income;[2] however, concurrently there was an increase in the excise tax structure.[3]

In conclusion, no strong positive correlation can be found between the increases in income tax rates and its quantitative value in the federal tax structure. Quite possibly, a stronger correlation may be found between the relative value of income taxes and business profits combined with the efficiency of income tax collection, provided adequate statistics were available.

In the next section, two revenue sources, one called a tax and the other of much greater quantitative value, called federal income on exchange, will be described under the heading of "import taxes," because their collection or

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[1] Ibid.

[2] Legislação Federal, p. 52.

[3] Inter-American Development Bank, Institutional Reforms and Social Development Trends in Latin-America (Washington: IADB, March, 1963), pp. 93-94.

assessment is based on goods that are passing through customs or scheduled to pass through customs into Brasil.

Import Taxes (Customs Duties)

As shown in Table 6, from 1953 through 1957 the value of import tax was never greater than 6 per cent of federal taxes, and through 1963 always less than 14 per cent; however, a fairly large percentage of federal excise tax was collected on imports, in addition to a very large federal revenue (agios) collected from importers while in the process of getting import licenses during the 1953-1961 period. See Tables 11 and 12 for more detailed examples.

Impostos de consumo

Quantitatively the most important federal tax since the beginning of the kingdom of Brasil in 1808 was an excise tax called imposto de consumo (consumption tax) levied at least equally on imports as well as on the commodities that are manufactured in Brasil. These tax rates vary with the type of product as well as between one imported or locally produced.[1] The tax was assessed on a flat rate, with the rate on imports often as much as triple that of the same item produced locally. In this manner both protection and added revenue were achieved without ostensibly raising the customs duties, even though this

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[1]Ministério da Fazenda. Histórico dos Impostos de Consumo. Vol. I, by Severiano de Andrade Cavalcanti. Rio de Janeiro: Imprensa Nacional, 1924.

tax or fee was collected at the customs house. As shown in Table 6, excise tax has continued as the most important federal tax revenue source except for the years 1952-1956, when it ran a close second place to income tax. In 1957 excise, or consumption, taxes returned to dominance upon the shift from a flat rate to an ad valorem system of determination for excise taxes.

Profits on exchange

As projected in Table 11, the extra premium or agio was required on imports from September, 1953, when this program was initiated in an effort to halt foreign exchange deficits.

Following is a brief outline of how the agio system operated. All imports were divided into five categories: I, II, III, IV and V. Each commodity was placed in a category determined by its economic value to Brazil--the lower the category the higher its value. Weekly the federal government released a certain amount of foreign exchange for auction in each category, with the larger amounts in the lower categories. The highest bidder thereby obtained the right to purchase the necessary foreign exchange at the official rate from the fiscal agent of the federal government and also automatically was allowed to get the necessary import license, which could not be obtained in any other manner. The amounts and types of foreign exchange were dependent on the exchange available to the Exchange Department of the Banco do Brasil, and in

accordance with bilateral trade agreements made with various countries. Brazil, in an effort to keep its trade balanced, had made these bilateral agreements with certain countries (mainly of soft currency) to the extent that about 30 per cent of her foreign trade was so covered.

As the cost of foreign exchange was the official rate plus the agio, there had been an enormous profit to the federal government. By law the use of this profit had been restricted to the payment of export "bonuses" and for economic development programs.[1] During the early years, about two-thirds of the profits were used for export "bonuses"; but in 1958 and 1959 only about one-half was so utilized, the remainder having been used principally for highways and agricultural development.[2] In 1960 only 30 per cent of the agios collected were needed for export bonuses; however, the system terminated in March, 1961, when three-fourths of agio receipts were needed for export bonuses that year.[3]

With exports, as with imports, all foreign exchange must pass through the fiscal agent of the federal government, e.g., the Exchange Department of the Banco do Brasil.

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[1]Loeb, pp. 84-85.

[2]IBGE, Boletín Estatístico, No. 58, Abril-Junho de 1957; No. 67, Julho-Setembro de 1959; No. 70, Abril-Julho de 1960 (Rio de Janeiro: Serviço Gráfico do IBGE, 1957, 1959, 1960), pp. 42, 64, 52.

[3]IBGE, Anuário Estatístico do Brasil - 1962, Ano XXIII, p. 131.

Because of the continuous inflation since 1949, a year after the official rate of 18.82 cruzeiros per U. S. dollar was initiated as the par value upon Brazil's entrance into the International Monetary Fund, all exports have been in need of some type of subsidy to meet world prices when the official exchange rate was used. To alleviate this pressure, Brazil set up four export categories whereby the exporter of the commodity being exported received, in addition to the official rate in cruzeiros, a "bonus" determined by the category. These bonuses were set up at the value necessary to meet the current foreign market conditions. In December, 1958, they ranged from 18.70 cruzeiros per dollar for coffee of Category I to 73.6 cruzeiros per dollar for the general category, or Category IV, which was used for all commodities not found in the other three categories.[1] All of the principal exports are included in the first three categories.

The coffee export rate--bonus plus official exchange rate--was subsequently raised to 60, then 76, then finally to 90 cruzeiros per U. S. dollar on July 1, 1960. In the meantime, all commodities of Group IV had been transferred to the free market. This last action was initiated for the purpose of increasing exports, thereby alleviating the balance of payments pressures being experienced by Brazil.

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[1]Banco do Brasil, Relatório de 1958, p. 191.

Table 11

Weighted Averages of Import Premiums (Agios) with Free Market and Official Market Rates to the U. S. Dollar - 1953-1961 (in cruzeiros per U. S. dollar)

Year	Official[a] Rate	Average Free Rate	Weighted Average of Agio[b]
1953	18.82	43.3	36.2
1954	18.82	62.2	51.2
1955	18.82	73.6	101.4
1956	18.82	73.6	94.6
1957	18.82	75.7	87.7
1958	18.92	127.6	156.5
1959	18.92	156.1	208.2
1960	18.92	189.9	218.7
1961	18.92[c]	209.0[d]	207.9[c]

[a]Rate at end of year.

[b]Added to the agio fee is the official rate of exchange before the foreign exchange is transferred to the importer.

[c]All imports are transferred to free rate after March 13, 1961.

[d]Average only for the period of the agio--until March.

Sources: Banco do Brasil, Relatório de 1958, pp. 100-102; Instituto Brasileiro de Economia, Conjuntura Econômica, January, 1956, February, 1956, March, 1960, February, 1961, May, 1961 (Rio de Janeiro: Fundação Getúlio Vargas, 1956, 1960, 1961), passim.; International Financial Statistics (Washington: International Monetary Fund, April, 1961), p. 62; IBGE, Anuário Estatístico do Brasil - 1954, 1955, pp. 222, 247-48.

Unfortunately this last move did not meet with success. Governmental restrictions were made on the exportation of certain commodities not usually exported, because of the "need for these commodities in the domestic market."

On December 31, 1959, all export commodities were transferred to the free market except coffee, cacao, castor seeds, and crude petroleum. Coffee exports remained at 90 cruzeiros per U. S. dollar and cacao and castor seeds were also included in this grouping; crude petroleum was exported at 100 cruzeiros per U. S. dollar. In March, 1961, all commodities but coffee and cacao were transferred to the free market, with coffee remaining at 90 and cacao elevated to 100 cruzeiros to the dollar.[1]

By using this unrealistic exchange rate, the government was able to collect a revenue in 1958 greater than all of the federal tax revenue. Less than half of this revenue was needed for export bonuses that year; hence the reported profit on exchange amounted to more than 53 per cent of federal tax revenue, as may be seen in Table 12. In addition to this listed profit, the government was able to purchase merchandise such as coal, fuel oil, railroad equipment, and machinery, needed for the various government entities, at the official rate of exchange. This final savings can be demonstrated upon comparing the

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[1]Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., April, 1961, p. 62.

Table 12

Import Agios Collected and Export Bonuses
Distributed by the Federal Government
(in million cruzeiros)

Year	Agios Collected	Export Bonuses	Profits*	Federal Tax Revenue
1953	3,987	1,961	2,026	27,627
1954	27,801	15,558	12,243	37,011
1955	33,271	31,097	2,174	48,368
1956	53,485	37,949	15,536	61,034
1957	61,271	56,517	4,754	72,937
1958	102,903	48,334	54,569	101,998
1959	132,738	62,490	70,248	140,182
1960	179,753	54,453	125,300	196,899
1961	41,415	30,683	10,732	282,584
Total	636,624	339,042	297,582	986,640

*Profits are determined by subtracting bonuses from agios.

Sources: IBGE, Anuário Estatístico do Brasil - 1955, 1959, 1960, 1962, pp. 525, 193, 143, 131; and Banco do Brasil, Relatório - 1964, p. 309.

official rate of 18.92 cruzeiros, not with the free rate which would be unrealistic due to its limited usage, but instead with a weighted average of all transactions, including exports and imports. In 1958 the rate determined by the Fundacao Getulio Vargas, a competent research organization, was 91.59 cruzeiros per U. S. dollar.[1] Hence this would indicate that in that year the federal government had realized another appreciable revenue in the form of almost 80 per cent reduction in the cost of governmental imports. The federal government also gave this import privilege to certain new industries of "benefit to the economy" for the importation of initial machinery and equipment. However, by 1960 the percentage of imports entering under these special authorizations rose to over 42 per cent of all currencies, thereby bringing the weighted average of all imports down to 150.5 cruzeiros per dollar in comparison with the average free exchange rate of 189.9 cruzeiros per dollar.[2] Under these conditions, the federal government could not show a paper profit even on the import premiums alone, much less after inclusion of the export bonuses, which must be subtracted from any profit resulting from the exchange market in import certificates.

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[1] Instituto Brasileiro de Economia, Conjuntura Economica, Ist. Ed., Year VII, No. 3, March (Rio de Janeiro: Fundação Getúlio Vargas, 1960), p. 9.

[2] Ibid., Year VIII, No. 2, February, 1961, p. 37.

Another "benefit" of this system was the extreme protection given to local industry, in one instance for manufacture of a "least desired" import. For that reason over half of new foreign investment for the last five years of this agio system were for the manufacture of automobiles, an item which had been in Category V (luxury items), instead of investment in an industry manufacturing commodities found in Categories I, II, and III, whose agios had cost only about one-fourth that of agios in Category V.[1] From September, 1957, to March, 1961, in the new two-category system, the protective ratio was only about three to one in favor of the economically least desirable commodities, except for a special "specific suation" for fertilizers and insecticides, with a cost of one-sixth of the higher category.[2]

A more meaningful comparison, however, would be between the General Category, which represented almost 95 per cent of the agios in 1961, and the other categories or types of agios. For the purchase of United States dollars, the average agio paid in 1961 for the General Category was 228 cruzeiros compared with 652 cruzeiros paid for Special Category imports, or at about a three to

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[1]In 1956 the manufacture of automobiles was listed as a basic industry by the government of Brazil.

[2]IBGE, Anuário Estatístico do Brasil - 1962, p. 131.

one ratio, while the ratio between the average agio for the "specific auction" and for the General Category was at one to two, or 114 cruzeiros to 228 cruzeiros.[1]

Regardless of the ratios in operation, ceteris paribus this system did tend to aid growth and development, at least in the short run.

Later instructions of the Superintendency of Money and Credit

In March, 1961, SUMOC issued instructions 204, 205, 208, and 217; the result was the removal of all imports from the agio system and the allowing of all imports to enter Brazil under the "free" market.[2] The same may be said for exports--that is, all exporters were allowed to receive payment for goods at the "free" market rate instead of at the old official rate plus a bonus.

Actually the situation was not so simple as pictured by the above-mentioned instructions. Instead of there being a true free market, the "free" market was set by the Exchange Department of the Banco do Brasil at 460 cruzeiros per U. S. dollar for importers and 475 cruzeiros per U. S. dollar for exporters; and to add to this restriction, the exporters would not release their bills of exchange to the importer unless an extra bonus of 16 to 22 cruzeiros per dollar were added. This divergence from a

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[1] Ibid.

[2] Banco do Brasil, Relatório de 1961, p. 301.

valid free market was accentuated by the exchange rate in the cambios or in the "parallel" (grey) market, which varied between 625 and 660 cruzeiros per U. S. dollar in October, 1962, when the official free market rate was 475.[1]

The "free" market for exports was also fictitious. There was still a federal government revenue on the exports of both coffee and cocoa, although as before it was not in the form of a tax per se. For coffee, which constitutes about half of Brazil's exports, the exporter had to pay the Banco do Brasil $22,00 (U. S.) for each 60 kilo bag of coffee exported. As the normal value for medium-high grade coffee in 1962 was about $44.00 (U. S.) per bag, the government got half of the gross sales price for supplying the export license. Cocoa exporters got off a bit easier; they only had to pay 15 per cent tax in foreign currency for the license to export at the "free" rate set by SUMOC.[2]

Summary

In summation, the weak points may be listed as: (1) The tax structure, especially income, is entirely too complicated to be efficiently administered by a highly developed society, much less by one with an

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[1]Conjuncture Economique, November, 1962, pp. 22-26.

[2]International Monetary Fund, International Financial Statistics, Supplement to 1962/63 issues, passim.

illiteracy rate above 50 per cent. (2) The percentage of indirect taxes is too high[1] regardless of whether the percentage is raised by adding the "profits of exchange" as a tax. High indirect taxes tend to overtax the lower income class, thereby restricting the development of a large middle class, which is a necessary requirement for balanced economic growth. This problem is intensified by Brazil's recent history of inflation. (3) The high protectionism along with the methods used to present it has tended to obstruct instead of aid balanced growth.

Not only has protectionism enhanced the value of local production for the least wanted commodities of the import categories, but the continued high protection by agios or by import exclusions after local production has started has kept the prices of the locally manufactured goods at prices more or less equal to the very high import prices with agios, to which the consumer has become accustomed. The apparent effect of this condition may be seen in the composition of Brazilian exports in recent years (up to 1963)--when less than 3 per cent of exports were manufactured goods.[2]

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[1]"An inflationary development is, in general, incompatible with the conception of growth, because this takes place at the expense of the consumption of the poorest." Paul A. M. Van Philips, Public Finance and Less Developed Economy with Special Reference to Latin America (The Hague: Martinus Nijoff, 1957), p. 61.

[2]Banco do Brasil, Relatório de 1961, pp. 215-217.

Of course, the removal of the multiple exchange rate agio system for import licenses has cleared the way for further improvement, but it might be mentioned that although the over-all effect has been a more progressive federal tax or revenue, in addition to the removal of high protection for the local production of luxury goods, the end result has been even greater government budget deficits, which have caused a massive increase in the printing of money (a 52 per cent increase in 1961). This increase in the emission of paper money was largely responsible for the 45 per cent inflation in 1961.[1]

In essence, there is much room for improvement in the tax system of Brazil. This statement may be emphasized by checking on Brazil's compliance with the three basic goals of fiscal policy: (1) economic stabilization, (2) optimum use of resources, and (3) income distribution. Inflation over the past 20 years will strongly indicate a failure in stabilization. The optimum use of resources is definitely hampered by a tax system that automatically increases the tariff protection on luxury goods not needed by the economy. With a very high percentage of indirect taxes, it is difficult to make a distribution adjustment. This weakness is intensified by the avoidance of the effect of a relatively high inheritance tax through the inter-vivos transfer of property at a much lower transfer tax.

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[1]Ibid., pp. 302, 287.

Chapter 3

THE TRANSPORTATION SYSTEM

Transportation has historically been one of the great limiting factors to the full economic development of Brazil. The continental size of the country, the physical obstacles of the rugged terrain, the uneven distribution of population and production, and economic factors such as rate controls, inflation, lack of capital, exchange crises, and wars have combined to retard the development of a coordinated and efficient transportation system. An efficient transportation system should foment development and interregional trade. In Brazil this objective has never been achieved and the lack of transportation capacity has affected every sector of the economy. The situation has become a vicious circle, with production limited by transport capacity, and, to a certain extent, the lack of transport facilities may be blamed upon the low traffic density of many regions. The logical place in which to break the circle is transportation.

Up until the mid-1920's, the railroads in Brazil supplied the major means of transportation; and even in 1949 over 80 per cent by weight of national commerce in Brazil was moved by rail despite the fact that the railway industry was then in a very poor condition. However,

partly due to this unhealthy status, railroads have lost ground to both coastal shipping and to trucking, chiefly the latter. In 1958 the railway industry only accounted for 24 per cent of the volume of surface merchandise shipments compared with 42 per cent by truck and 34 per cent by coastal and river shipping.[1]

Although railway transportation may not be considered by all Brazilian "experts" as the prime bottleneck for the economic development of Brazil, it certainly would not be omitted from any list of Brazil's major problems. For example, João Pinheiro Filho, in his book Problemas Brasileiros published in 1938, lists three factors unfavorable to Brazil's growth and development; two of these deal directly with the scarcity of efficient transportation media, while the other points a strong indirect finger at poor transportation.[2] His three factors were: "(1) Extensão territorial immense e deficiencia de meios de transporte, (2) Distribuição irregular da população e escassez de braços nas zonas mais ricas, (3) Irregular configurações de solo, nos diversos Estados e a barreira quasi intransponsivel de cordilheira do mar, isolando o litoral do 'hinterland.'"[3]

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[1]Keare, p. 135.

[2]João Pinheiro Filho, Problemas Brasileiros (Rio de Janeiro: Editora S. A. A. Noite, 1938), p. 104.

[3]Idem. Rough translation: "(1) An immense territorial expanse and a scarcity of means of transportation,

In 1953 the conditions described in the first and last factors were still prevalent, and as both of them deal directly with land transportation, the object here is to show how and why the obvious need for an efficient transportation network was not supplied by rail transportation, and whether there is a probability for the successful consummation of this goal by rail transportation, either alone or along with highway and other transportation media.

Railways of the Empire

The early development of railroad transportation in Brazil was determined largely by the following factors:

1. Population and nearly all economic activity was, until recently, concentrated within the narrow coastal belt which is separated from the interior by an almost unbroken chain of mountains.

2. At the time of development of the railroad system, almost the entire economy of Brazil was oriented towards exportation of raw materials and foodstuffs. Most of the railroads were financed by European and British interests, and were designed solely to tap the interior for exports; therefore, they were constructed on a radial pattern from the main ports. Even today Brazil has not developed a fully integrated north-south railroad system.

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(2) Uneven distribution of population and a scarcity of labor in the richest zones, (3) Irregular configurations of the land structure in various states, and an almost insurmountable obstacle in the mountain range (cordilheira do mar) isolating the coastal plain from the interior."

3. The policy of the Empire and the early Republic, under which most railroad construction was carried out, was to encourage railroad construction and, as in the United States, many lines were constructed as penetration railroads. Unfortunately, in many cases the expected stimulating effect of railroad construction upon a new area did not materialize, and certain lines have never developed a traffic density which would warrant their maintenance in service.

4. In addition to penetration railroads built as a form of economic speculation, railroad construction in Brazil has been strongly influenced by strategic and local political interests, viz., the Rio Grande do Sul Railroad was constructed chiefly for defensive purposes.

In 1835, the first Brazilian railway law presented the conditions for obtaining a railway concession; however, as no special inducements to private capital were presented in the law, no railway building evolved from it. The difficulty of obtaining risk capital from overseas was increased by the mountainous terrain encountered only a short distance from the ports in the populous south and east, as well as the heavy rainy seasons that increased the difficulties of railroad construction. Neither did the prevalence of tropical diseases nor the unstable supremacy of a young government enhance the chances of rail development.[1]

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[1]Julius S. Duncan, Public and Private Operation of Railways in Brazil (New York: Columbia University Press, 1932), pp. 20-22.

In view of the above, it is not surprising that no railroads were built in Brazil until the passage of a law in 1852 that offered three special inducements to the builder: (1) no import duties to be charged on construction materials; (2) a privileged zone of five leagues on either side of right of way to prevent other railways from competing with the original builder; and (3) most important, a guarantee of 5 per cent profit. As a result of this law, five railroads were built--two from Rio de Janeiro, one from Santos, one from Recife, and one in Bahia. The first completed railway, however, was constructed on a special contract without the profit guarantee. It was completed in 1854, only 14 kilometers long, connecting Rio de Janeiro with the summer capital.

But due to strong competition from Russia in railway concessions, Brazil had to raise the rate by guaranteeing the 5 per cent profit payment in pounds sterling or in gold. In fact, even this was not enough, and four of the states (Pernambuco, Bahia, Rio de Janeiro, and São Paulo) found it requisite to guarantee an additional profit of 2 per cent in gold.

Despite the railway building slow-downs during the Crimean War (1854-1856) and the Paraguayan War (1865-1870), Brazil in 1874 had 1,283 kilometers of railway in operation.

By 1869 the total investment on railroads on which Brazil had guaranteed interest was the equivalent of

U. S. $31,850,000, half of which was supplied from the treasury of the Brazilian empire.[1] To avoid disagreements on the determination of the base for the interest guarantees, the base was set on a fixed amount of investment per kilometer of line. This led to longer lines for higher interest guarantees, and at the same time a saving in the cost of grading. The resultant winding roadbeds resulted in very inefficient and sometimes dangerous railway operations. Many of the lines were uncorrected as late as 1955; and some are still unresolved, causing slower speed, greater wheel and rail wear, and frequent derailings.

By 1874 the government had obtained possession of only one railroad, the E. F. Dom Pedro II; and this was due to financial failure on the part of the railroad. By that time, only private companies under contract of the government had built railroads. With the institution of a new railway law in June, 1874, many of the problems encountered in the earlier period of railway construction tended to be corrected; that is, a need was seen for a more professional approach to both the location and the actual construction of railroads, as well as for more efficient administration of the railroad itself.[2] This

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[1] Ibid., p. 25.

[2] Ibid., p. 27.

development led to government construction of railroads, both by the empire and the provinces, chiefly the former, as well as the government seizure of railroads, both during and after construction, for different reasons varying from financial difficulties of the companies to "for the good of the nation." In each case, however, the government bought the lines with cash and/or government bonds. The empire also began a policy of governmental management of the roads that were built by itself or by the provinces (states), as well as the "recaptured" railways.

In summation, by the end of the empire in 1889 the central government had "recaptured" five railways and with the help of provincial governments in some instances, had completed the construction of seven other railways. As this last period of the empire was the most productive of all railway construction periods of Brazil, the central government owned and operated 34 per cent of the nation's railways (by trackage) or 3,044 kilometers, compared with 33 per cent or 828 kilometers in 1874,[1] when it owned only one railroad, the Central do Brasil (ex E. F. Dom Pedro II).

The "recapture" of railroads during this period of stability of Brazilian currency was condoned by a Minister of the Empire on the basis of the "cheaper government operation" due to the lower interest rates paid by the

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[1]Ibid., pp. 39-40.

government on borrowed money, as well as central supervision and purchasing by the government. However, this same Minister, Augusto da Silva, advocated the renting of recaptured lines to private companies.[1] Although this last proposal may seem a contradiction of the first, it was followed in the second decade of the republic "to allow the government to use the money that would be tied up in administration costs for use in extending the construction of the railroads in existence."[2]

It might be added that a very important factor in the construction of railroads under the guidance of Emperor Dom Pedro II, 1840-1889, was the ready availability of foreign capital, chiefly from London, at low interest rates due to the over-all stability of the mil reis despite the long and expensive Paraguayan War from 1865 to 1870.[3]

Railroad Policies During the First Period of the Republic (1889-1914)

The first decade of the Republic (1889-1898) was a period of political instability and budgetary deficits.

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[1] Ibid., pp. 41-42.

[2] Ibid., p. 42.

[3] Ibid., p. 44. Although the mil reis suffered external depreciation during the war, it returned to its standard value of 54 cents in 1889, which was within 2 per cent of its highest average annual rate since 1856. Ibid., p. 183.

The resulting large growth in the circulation of paper currency (over 350 per cent increase with a population increase of only 19 per cent) started an inflationary trend that carried the nation close to bankruptcy. Most of the enormous debts of the Brazilian government to the railway companies were in gold, not in mil reis, which had depreciated from 54 to 15 cents (U. S.) from 1889 to 1898. In fact, during that last year, one-third of the federal budget was used to pay the railway profit guarantees in gold.[1]

This crisis was alleviated by a ten million pound sterling loan from Great Britain in 1898. In order to avert a similar financial crisis, Brazil started buying the railway companies holding the gold return guarantee, especially the ones not making a profit as large as the guarantee. In 1902 the Brazilian government bought 2,143 kilometers of lines for 14,605,000 pounds sterling and paid with government bonds bearing 4 per cent interest.[2] Many other lines were bought by the federal government either at public auction after bankruptcy or because of the inability of the companies to keep roadbeds and rolling stock in suitable condition.

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[1] Ibid., pp. 48-49.

[2] Ibid., p. 51.

Finally, in 1914 the federal government followed the advice of the Minister, Augusto de Silva, and began the policy of leasing railways to private entities for periods of around thirty years for a down payment plus a certain percentage of the annual returns--usually from 25 to 50 per cent. It was evidently considered that such operation would be more efficient and, even more important, that the cash saved by the federal government could be better used to extend the existing lines. Another policy, which has continued through the present, was the consolidation of lines before leasing them. This consolidation trend was created by necessity, due to the plethora of small lines that proved to be uneconomical to operate individually. During this twenty-five year period, five lines were joined into one in the Northeast, four into one in the state of Bahia, three into one in Minas Gerais, and five into one in Rio Grande do Sul.[1]

Railway History from 1915 to 1953

Since 1915 the tendency has been toward more governmental (state and federal) operation and ownership of the lines, especially the latter, as may be seen in Table 13. This situation was accelerated by the combination of (1) the internal inflation of the mil reis in Brazil along with the delay or absolute denial of rail rate increases

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[1] Ibid., pp. 54-56.

Table 13

Operation and Ownership of Brazilian Railroads
1889-1958
(in percentages of track extension)

	Ownership					Operation				
	1889	1914	1930	1947	1960	1889	1914	1930	1947	1960
Federal Government*	34	53	59	68	78	34	18	29	41	78
State Government	0	8	9	25	9	0	2	23	31	9
Private Companies	66	39	31	7	13	66	80	48	28	13

*Indicates Empire for 1889.

Sources: For 1889-1930, Julian S. Duncan, Public and Private Operation of Railways in Brazil (New York: Columbia University Press, 1932), p. 57; for 1947, "Brazil - Summary of Basic Information," Business Information Service - World Trade Series, No. 158, December (Washington: U. S. Department of Commerce, Office of International Trade, 1951), p. 3; for 1960, Gertrude M. Hare, Brazil: Information for U. S. Businessmen, U. S. Department of Commerce (Washington: U. S. Government Printing Office, 1961), pp. 136-37.

by the federal government, and (2) the inability of the railroads to obtain rails and rolling stock during World War I.

The deterioration in the financial and physical condition of the railroads became serious towards the end of the 1920's; and the unsatisfactory technical conditions of their original layout always limited their capacity. The major structural shifts in the Brazilian economy were yet to come, and the agricultural and industrial production had not yet received the great impetus which caused the multiplication of demand for railroad capacity. However, as early as the 1920's there was considerable criticism by both foreign and domestic observers of the debilitating effect that the poor services of the Central do Brasil, the Môde Minairo, and the Leopoldina had upon the exploitation of the great mineral resources of the state of Minas Gerais.

On the other hand, during this period many penetration railroads had been constructed through completely undeveloped frontier zones. The Noroeste Railroad reached Fôrte Esperance on the Paraguay River (at the Bolivian border) in 1914, with some 1,600 kilometers of line traversing an almost completely uninhabited wilderness beyond its point of origin in Bauru. The Sorocabana Railroad reached Presidente Prudente, only 40 miles from the Paraná River, in 1922; and the railroad was used as a means for colonizing and opening up this extremely rich area. Far western São Paulo, northern Paraná, and southern Mato Grosso have been opened up on a

large scale only since 1940. In this particular region, railroads, which are such an important social overhead investment, preceded rather than lagged behind agricultural and industrial development. This excess of railroad capacity soon disappeared, however, and subsequently the railroad industry became a bottleneck which limited rather than fostered expansion of the region.

In the middle 1920's, truck competition began to assume real importance and had an almost immediate and serious effect upon the earnings position of the railroads, which, at that time, seemed to have attained a situation of relative financial stability and a sound future in view of the development of agriculture and industry. Due to the compensatory rail tariff structure adopted, based upon a system of charging high tariffs for certain high-unit-value commodities and low tariffs, which sometimes did not cover operating costs, for the bulk low-unit-value categories, truck competition exercised a particularly serious effect upon the financial status of the railroads. The high railroad tariff classifications, which as a rule are not bulk commodities, proved particularly suitable to truck transportation; and highway transport rates were provided an umbrella which made trucking extremely profitable. As a result, the railroads tended to lose the high-value freight upon which their profits depended; and in many cases they were left with a traffic

pattern which provided them automatically with increasing deficits for each extra ton-kilometer of cargo.

This itself tended further to dry up the investment sources of the private railroads, which were then largely foreign owned. During this period, these railroads attempted to maintain a minimum distribution of dividends to their foreign stockholders. However, as they were progressively caught in a squeeze of rising costs and falling revenues, most railroads made few investments for either innovation or general maintenance. In the late 1920's, resquipment and expansion of the railroads in São Paulo proceeded almost exclusively on a debt, rather than on an equity basis.

These difficulties were further aggravated by the great depression of 1929-1940, which temporarily destroyed the basis of the Brazilian coffee economy. As coffee production fell and trees were plowed under, the railroads were deprived of a great percentage of their most profitable freight. The economic stagnation resulting from the depression of the 1930's was reflected in the under-utilization of existing railroad facilities and this discouraged not only expansion of facilities but also the reinvestment in the existing physical plant.

During the great depression, both the absence of a domestic railroad equipment industry as well as the sharp decline in foreign exchange receipts resulted in a currency depreciation so severe that relatively unprofitable enter-

prises such as railroads found it impossible to raise sufficient cruzeiros to purchase the equipment and spare parts so vitally needed for their maintenance. At the same time, and for the same reason, all foreign investments in railroads virtually ceased.

By the beginning of World War II, the Brazilian railroads found themselves in a situation whereby the privately owned lines, with a few notable exceptions, had become increasingly unprofitable. Little systematic renewal of rolling stock, maintenance, or improvement of the permanent way had taken place for over a decade. Meanwhile, the government-operated (chiefly federal) railways, in addition to financial and equipment problems, had tended to become less efficient, as political influence on management and overstaffing tended to become more acute during the depression. In this precarious situation, the Brazilian railroads found a heavy additional burden thrown upon them with the outbreak of World War II. Deep sea shipping difficulties brought highway transportation, which depended almost entirely upon imported fuels, to a virtual standstill; and enemy submarine activity limited coastal shipping and brought heavy losses to the Brazilian Merchant Marine. From 1941 to 1945, the Brazilian transportation system, principally the railroads, had to support the added strains of the nation's war effort. In particular, the northeastern railroads serving the great Allied base at Natal and the ore-carrying railroads in central Brazil found

themselves faced with greatly increased traffic demands. Railroad equipment had to be more intensely utilized at a time when it was impossible to acquire more equipment abroad. The under-maintenance which was chronic during the 1930's was aggravated by necessity, and equipment was run until it literally fell apart during the World War II period.

With the outbreak of the Second World War, Brazil entered a period of rapid internal price inflation. The result, as far as the railroads were concerned, was a spiralling of operating costs as wage increases had to be granted, and fuel and all other purchases, whether domestic or imported, became more and more expensive. On the other hand, railroad rates were among the few cost items which the government could effectively control. Throughout the war period, the government was reluctant to increase freight rates, especially for basic foodstuffs and bulk raw materials which form the major part of railroad traffic, despite the fact that the freight charges usually amounted to less than 5 per cent of their value.

The net result of the war upon the Brazilian railroad system was to intensify the squeeze between rising costs and limited revenue which had characterized the depression era. Added to the profit squeeze was the increased rate of deterioration of rolling stock and road beds.

The full impact of these forces upon the financial and physical conditions of the railroads did not become

fully manifest until the end of World War II. This was due largely to the failure of most railroads to make properly adjusted depreciation allowances. The railroads showed paper profits at the expense of a continued running-down of their real assets, viz., from 1915 to 1945 a paper profit was shown for the whole railway system.[1]

An additional factor, which was purely temporary in its effect, was that during the war the railroads had regained a large share of the high-unit-value freight which had previously gone largely by truck. At the end of the war the physical plant of the Brazilian railroad system was in extremely poor condition as a result of over-use and lack of maintenance and replacement of equipment. The majority of the rolling stock was over-age. In 1951, some 60 per cent of the 3,700 locomotives in service were over 30 years of age, 85 per cent over 20 years old, and only 2 per cent less than 10 years of age.

The financial situation of the railroads became so serious that in 1945 a special law was passed providing for two surcharges of 10 per cent each to be collected upon all tariffs; and the revenues from these funds were earmarked for use by the railroads for stock renewals and improvements only. However, due to increasing deficit operations, many of the railroads have been forced to

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[1]IBGE, Anuário Estatístico do Brasil - 1955, p. 185.

apply these funds to their general operating funds, with the result that even these minimum reserves have not been fully applied to renewals and improvements.

Highway competition returned as large-scale importation of trucks, gasoline, and spare parts was resumed. Again the railroads found themselves in a highly disadvantageous competitive position. An additional factor which encouraged highway competition was that the railroads were in such poor material condition that they could not provide sufficient capacity to meet the demands made upon them by the rapidly expanding agricultural and industrial sectors of the economy. In many regions of Brazil, the absolute lack of transport capacity meant that any new transport facilities found an immediate and ready-made traffic. The response to this situation was a rapid expansion of private trucking facilities.

As mentioned previously, the reduced profitability of the railroads during the late 1920's and the prolonged world depression had induced the foreign owners of Brazilian railroads to make few new investments for many years prior to the second world war. During the war, with Britain's resources committed fully to the fight for survival, it was manifestly impossible for her to make available either foreign exchange or equipment for her Brazilian railroad holdings. On the contrary, Britain was forced to go into debt to Brazil to finance wartime imports of strategic materials; and sterling balances were built up on Brazil's

amount. It became increasingly clear to the British owners that the sale of their properties to the Brazilian government in settlement of Brazilian wartime sterling balances was only a matter of time. This realization heightened the tendency for non-investment on the part of British owners.

During the early years of World War II Brazil acquired the Victoria a Minas Railroad and the Itabira Iron Mines from the United Kingdom. In addition, such important lines and/or their rental contracts, as the São Paulo-Paraná, the Great Western, and the Leopoldina, were purchased by the Brazilian government during and shortly after the war with the proceeds of the Brazilian blocked sterling balances. The San [sic] Paulo Railway was purchased by the state of São Paulo. Therefore, by 1950 virtually all the major railroads in Brazil except the Paulista and the Mogiana in the state of São Paulo were both owned and operated either by the federal or state governments. This was a natural culmination of the economic trends described above. For many years prior to the actual transfer of the private railroad lines, the government had exercised direct controls over the railroads in the form of fixing tariffs and forcing the railroads to grant wage increases, even when such wage increases meant that the government had to grant outright subsidies to the railroads.

In 1946, the first year of a published composite net operating deficit for the Brazilian railroads, the deficit

was 240,000,000 cruzeiros; by 1948 it had risen to 777,000,000 cruzeiros; by 1953 it was up to 2,977,000,000 cruzeiros.[1] While the inflation, deterioration of equipment, increasing competition, and structural changes in the economy may have been primarily responsible, the government policy on freight and passenger rates was also a very important factor which will be covered later.

In 1946 and 1947 and again in 1950 and 1951 the foreign exchange position of Brazil was favorable; and it should have been possible for the railroads to take advantage of the liberalization of import controls. However, due to the weak financial position of most of the railroads, it was impossible for them to raise the necessary cruzeiro funds to legally acquire foreign exchange from the Bank of Brazil; and the federal government did not grant them the necessary special subsidies for large new imports of equipment. As a result, the railroads did not participate in the influx of imports which greatly strengthened the competitive position of highway transportation. As of January, 1953, the equipment of the Brazilian railroads, except for a few postwar purchases, was in approximately the same position as it was at the close of World War II, except that it was six years older.

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[1]IBGE, Anuário Estatístico do Brasil - 1955, p. 185.

Conclusions

The purposes of this chapter are first to show the reasons why Brazil does not have an efficient railway network and second to indicate whether such a rail or transportation network is probable in the near future. The answers to the first objective should now be self-evident to the reader of this paper; however, the second part has not been answered as two or more conditions plus a crystal ball are required before an answer should be attempted.

As you probably have noticed, throughout this chapter there is almost constant referral to operational deficits of railroads in Brazil, starting with the first year of the republic, which was incidentally also the start of the long inflation season which was abated for only a short five-year period at the turn of the century.

One of the important reasons for this steadily mounting operating deficit is the rate structure of the Brazilian railroads. Except in the case of the state lines in Sao Paulo, the freight rates have seldom covered operating costs and in many cases an increase in freight hauled resulted in a correspondingly larger operating deficit.

Railroad rate increases for basic foodstuffs have been repeatedly blocked in an attempt by the federal authorities to keep the cost of living down. In most cases, railroad tariffs represent an extremely small percentage (2 per cent to 5 per cent) of final consumer prices and are

negligible when compared with markup percentages and turnover taxes in effect on the cost of living. The best evidence that service and not higher tariffs is the most important factor influencing the shippers' choice is the fact that such lines as the Paulista, Sorocabana, and Araraquara, which have among the highest railroad freight rates in Brazil, have had little difficulty in attracting traffic, due to their efficient service.

The rate policy has had negligible, or possibly even negative, effects upon holding price levels down. By contributing to the weak financial condition of the railroads, and thus their inability to make necessary renewals and improvements, the resultant transportation bottlenecks have encouraged speculative price maneuvers, which during an inflation contribute far more to the rise in prices than would the relatively small increases in freight rates necessary to cover operating costs. The government policy of granting freight-rate abatements to certain strategic industries such as Volta Redonda means that every ton of such products carried increases the railroad's deficit. A similar situation prevails in the field of suburban passenger services, where rates are ridiculously low. On the Central out of Rio de Janeiro, the tariff is approximately one-tenth to one-fifth of cost.

There is a real cost involved in furnishing any type of transportation, and while it may seem temporarily advantageous to the public to charge subsidized low rates,

the final effect upon the taxpayer's pocket is usually more burdensome than if operating costs had originally been covered by tariffs. The policy of collecting hidden taxes to finance ex-post subsidies is inflationary and often removes an incentive to operating within a fixed budget.

Another important factor is that, with the growth of government ownership and operation of railroads, much of the need and the incentive to operate efficiently tends to be absent. If policy so demands, railroads may be granted direct, fixed subsidies, but otherwise should be run so that operating revenues cover the real costs of operation, including depreciation and reserves for improvements and renewals. Many government-operated railroads can simply turn in their deficit book-balances to the government, and request an ex-post subsidy at the end of each year. Then the new year is started with the opening of a completely new set of books. Therefore, with the knowledge that the government is always standing by to shoulder the operational deficits, the management in many cases has little real incentive to keep costs down and strive for a more efficient and economical operation. A concrete example may be found in Table 14, which shows the earnings, expenses, and deficits of federally operated railroads for 1938, a typical year for the E.P.F.S.A.

An additional factor contributing to the increased operating deficits has been the political and social pressure exerted upon the government railroads. Many of

Table 14

Earnings, Expenses, and Deficits of Railroads
Administered by R.F.F.S.A. - 1958
(in 1,000 cruzeiros)

Railroad	Earnings	Expenses	Deficit
E. F. Central do Brasil	3,312,914	5,962,421	-2,649.507
E. F. Leopoldina	700,977	2,436.018	-1,935.041
R. Mineira de Viação	504.669	1,670,100	-1,165.431
R. F. do Nordeste	434.985	1,287.809	- 852,824
E. F. Noroeste do Brasil	596.526	1,144.736	- 584.210
V. F. Federal Oeste Brasileira	228,227	734.253	- 506,026
R. V. Paraná-Santa Catarina	1,096,762	1,563.439	- 466,677
E. V. Cearense	86,894	438.308	- 351,914
E. F. Goiás	98,160	258.042	- 159,882
E. F. Dona Teresa Cristina	72,200	219,382	- 147,182
E. F. São Luiz-Teresina	19,372	165.644	- 146.272
E. F. Bahia a Minas	20,403	159,642	- 139,239
E. F. Bragança	7.483	95,553	- 88.070
E. F. Madeira-Mamoré	12.924	81,033	- 68,109
E. F. Central do Piauí	2,920	55.126	- 52,206
E. F. Santos a Jundiaí	1,433.779	1.883,392	- 49.613
Total	8,629.195	17,955,398	-9.326.203
Road Transport Service	314.737	211,625	+ 103,112
Central Administration	-	112,611	- 112,611
Grand Total	8,943.932	18,279,634	-9,335,702

Source: Instituto Brasileiro de Economia, Conjuntura Econômica, January (Rio de Janeiro: Fundação Getúlio Vargas, 1960), p. 66.

the government railroads include such auxiliary services as hospitals, dental clinics, training schools, athletic clubs, soccer teams, and other social activities in their operating costs. While these services may be beneficial in themselves, the budgets of the railroad should not be burdened with such costs. Political pressure has been brought to bear in appointing railroad directors, and particularly in the Northeast the railroads have become a type of public works safety valve during droughts and depressions. Many federal railroads are overstaffed and this fact is compounded by labor laws which protect any employee with tenure against dismissal. Perhaps even more serious is the fact that in certain cases the top administration of the railroads has been changed repeatedly, often with executive personnel changes all down the line. The result has been a general climate of insecurity, uncertainty, and a lack of responsibility, as well as a multiplicity of employees. Often both top management and other personnel have been chosen with little regard to their experience in running a commercial railroad operation.

Another problem has been the lack of direct action on necessary projects, such as the completion of at least the most urgent replacement highways to supplant inefficient spurs and branches of railroads. A double example of this is first, the use of the Ministry of Transportation and Public Works of 1.5 billion cruzeiros to pave one highway for substitution of one inefficient rail line instead of

using this money to replace a greater number of smaller but more inefficient railway lines. In the second example, after 300 million cruzeiros were supplied to the National Railroad Department to substitute a highway for thirty such branches, this money was shifted to the National Highway Department for addition to the 7 billion cruzeiros authorized for the Rio-Bahia superhighway.[1] Hence the one billion cruzeiro annual deficit necessary to maintain these lines will continue until the 300 million cruzeiros is available for the substitute highways (all figures in 1960 cruzeiros).

Along the same line is the lack of coordination in pushing the prime projects of the railroad program in Brazil, such as the southern trunk line that will link Rio and São Paulo with Pôrto Alegre. This line has been unnecessarily delayed for more than two years while many unimportant secondary lines have been completed post haste.

Although all of the above situations are important, they can all be solved by application of corrective action to the above-mentioned problems; however, there is one problem that is not so easy to solve--almost continuous inflation of Brazilian currency since the founding of the republic in 1889. In essence "the most difficult single feature of railway operation in Brazil is the unstable

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[1]Instituto Brasileiro de Economia, Conjuntura Econômica, July, 1960, pp. 53-56.

currency medium, the secular trend of which has been (external) depreciation.[1] In the past, when almost all equipment and much fuel had to be purchased with gold or foreign currency, it was even more important than now. But with inflation at the rate of some 50 per cent a year (1963), it is still very important--if not critical. This fact is emphasized by the history of tight government control over railroad tariffs.

Of course, the recent shift to more economical fuel in the form of electricity and diesel oil, as may be seen in Tables 15 and 16, will tend toward cheaper railway operation, as will the work being performed on widening and straightening of the track, and the elimination of lines or branches with low freight density.

What appears to be necessary is the formation of a railway organization with an autonomous base and a dynamic leader, plus enough capital for the urgent jobs to be performed; or simply to detach the antiquated and weak Federal Railway Department from operational work. Of course, the question will then be whether the R.F.F.S.A. should continue to operate the railroads at a deficit or should it rent them out to semiprivate companies as the federal government has done to the only federally owned

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[1]Duncan, p. 179.

Table 15

Electrification of Railroads in Brazil
1938-1958

Railroads	Extension in Kilometers 1938	1950	1955	1958
Under diverse administration:	376	775	1,058	1,115
E. F. Corcovado	4	4	4	4
C. F. Morro Velho	8	8	8	8
Paulista	286	451	494	492
E. F. Sorocabana	31	251	490	550
E. F. Votorantín	-	14	15	14
E. F. Campos do Jordão	47	47	47	47
Rêde Ferroviária Federal S. A.	225	425	902	1,267
V. F. Federal Leste Brasileiro	-	-	194	194
E. F. Central do Brasil	44	179	252	539
Rêde Mineira de Viação	181	181	333	395
E. F. Santos a Jundiaí	-	66	87	87
E. F. Paraná e Santa Catarina	-	-	36	52
Totals	601	1,200	1,900	2,382

Sources: Ministério das Relações Exteriores, Brasil 1960 (Rio de Janeiro: Ministério das Relações Exteriores, 1961), p. 716; and IBGE, Anuário Estatístico do Brasil - 1955, p. 190.

Table 16

Trackage, Rolling Stock and Power Sources of Railways in Brazil 1938-1960

	1938	1948	1956	1960
Kilometers of trackage of each gauge				
Narrow (0.60, 0.66 and 0.76 meter)	1,386	1,063	948	811
1 meter gauge	30,753	33,512	33,485	34,069
Wide gauge (1.44 and 1.6 meter)	2,068	2,630	2,616	3,459
Totals	34,207	37,205	37,049	38,339
Rolling stock				
Locomotives	2,995	3,828	4,153	4,454
Passenger cars	3,770	4,164	5,373	5,419
Freight cars	38,685	60,195	61,515	68,500
Source of power				
Electric energy (1,000,000 KWH)	119	284	456	546
Wood (1,000,000 cubic meters)	9	13	9	5
Diesel and fuel oil (1,000 tons)	24	102	537	572
Coal (1,000 tons)	1,165	1,244	797	369

Sources: IBGE, Anuário Estatístico do Brasil - 1955, p. 187; Banco do Brasil, Relatório de 1961, 1962, pp. 115-16, 108; and Ministério das Relações Exteriores, Brasil 1960, p. 717.

railroad operating at a profit? Not necessarily; the chief reason for the profit of the Vitoria e Minas Railway is that it has a monopoly on the transportation of iron ore found in the Rio Doce Valley, where about 80 per cent of all Brazilian iron ore exports have been transferred by this railroad to the port of Vitoria for embarcation. Similar statements could be made concerning the Paulista and the Sorocabana, with respect to their shipments of coffee, which is a high-freight commodity destined for the port of Santos. However, it can be seen that, in general, the federal railways have been inefficient, although they often did start with the private railroads that had already failed. The private railroads that succeeded because they were in better locations or were better constructed continued as private railroads until taken over by the state of São Paulo, that is, except for the three British railways which were appropriated by the federal government with blocked sterling after World War II. Of these last three railways, only the Vitoria a Minas is still making a profit, and it is not operated by the R.F.F.S.A., but instead by an autonomous agency controlled by the federal government.

In essence, apparently all that is needed is to either get the federal government to fire all unnecessary employees, to charge proper rates, to control inflation, and to operate its railroads more efficiently; or just to let the state of Sao Paulo run all of the railways without any rate

controls determined by the Federal Railroad Department or any other federal agency.

Other Transportation Media

Although railroads have consumed the largest portion of this chapter, there are similar types of problems in the other fields of transportation. However, as the situations concerning the other media are either less complicated, viz., highway building, or have represented less immediate fiscal action, their coverage will be limited to more concise presentations of the problems found in each transportation facility.

Coastal and River Shipping

Despite the fact that there are massive problems in Brazil's coastal shipping similar to those encountered by the railroad industry, before 1953 there had been no comprehensive national plan for development of the coastwise shipping industry that serves over 5,500 miles of coastline on the Atlantic Ocean. The importance of such a plan is intensified by the historical outline of the railroad systems from the ports to the interior, instead of interconnection of the ports by the railroads. This final job had been left to coastal shipping before development of the trucking industry, and to a large extent remains there, especially with respect to bulk items such as lumber, coal, salt, and sugar. The lack of highway development, chiefly in the North and Northeast, has left the elimination of

economic isolation of certain states almost entirely to the implementation of coastal shipping.

In 1952 the Brazilian coastal fleet was composed of 307 vessels of 609,000 deadweight tons with 25 per cent of tonnage over 40 years old and 40 per cent over 30 years old.[1] In fact, most of the newer ships were converted landing vessels, not large, efficient vessels specifically designed for coastal trade. These ships were owned and managed by 115 different companies, only three of which were of appreciable size. The largest firms belonged to the Brazilian government. They were Lloyd Brasileiro and Companie Nacional de Navegação Costiera, who operated 108 ships that comprised 71 per cent of the fleet tonnage. The only large private company was Companie Comercial e Navegação, with a fleet of 26 ships. Due to federal regulations, coastal shipping in Brazil is restricted to Brazilian companies.[2]

The basic problems facing the coastal shipping industry in 1953 were:[3]

1. Many of the small harbors used were poorly dredged and with little or no navigational aids. The result was

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[1]Howard P. DuTemple, "Brazil's Coastwise Shipping," Brazilian Technical Studies, Brazilian Institute of Inter-American Affairs, Foreign Operations Administration (Washington: U. S. Government Printing Office, 1955), p. 187.

[2]Ibid.

[3]Ibid., pp. 187-88.

that lighters often had to be used for handling cargoes of the larger ships.

2. Cargo handling and dock facilities were inadequate in many of the smaller ports, and dock space was limited in the large ports of Rio de Janeiro and Santos. These conditions brought about long delays along with extra cost in the handling of cargoes.

3. Dock storage fees, set by the government, were too low, thereby causing many importers to use the dock warehouses for long-term storage of goods. This practice complicated the operations of loading and unloading cargoes of vessels alongside the docks, resulting in greater inefficiency, higher unit costs, and longer dock-time for the ships concerned.

4. Due to the age and general condition of a large percentage of the fleet, fuel costs were exorbitant, and about 20 per cent of operation time was lost to repairs.

5. The two companies of the federal government competed with each other in all phases of operations. The result was duplication of agents, administration, repair facilities, and routing; both companies operated at deficits, while the larger private companies showed profits.

6. The federal government, as with the interstate shipments via railroads, also had set the freight rates for coastal shipping. These subnormally low rates were a

large factor contributing to the mass obsolescence and poor condition of both the ships and the docking facilities.[1]

Despite the difficulties mentioned, coastal shipping has performed important services. In 1949 it moved 45 per cent of the interstate commerce between the 18 states facing the Atlantic Ocean, while the remaining 55 per cent was divided between the railroads, river shipping, highway trucking, and airplanes. As the average distance shipped by coastwise shipping (about 900 miles) was much greater than that shipped by rail (about 135 miles), a comparison between the two in ton-miles, were the data available, would tend to present coastal shipping in a relatively more important position functionally than has already been shown by the above-mentioned statistics.[2] In eight of these states, coastal shipping supplied over 70 per cent of all interstate commerce.[3] And finally, coastal shipping in Brazil increased from 1.8 to 4.8 million tons from 1927 to 1951.[4] However, in 1951 large

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[1]Institute of Inter-American Affairs, Foreign Operations Administration, The Development of Brazil, Report of Joint Brazil-United States Development Commission (Washington: U. S. Government Printing Office, 1954), p. 86.

[2]DuTemple, p. 189.

[3]Institute of Inter-American Affairs, p. 86.

[4]DuTemple, p. 189.

food surpluses developed in the southern states while near famine was experienced in the Northeast as a result of drought. To alleviate this situation special legislation was passed permitting foreign carriers to operate, on a temporary basis, in the coastwise maritime trade.[1]

Although there are over 25,000 miles of navigable rivers in Brazil, in 1950 less than 2 per cent of the national freight was moved by river transportation.[2] As stated by Robert M. Warren, the Joint-Commission Advisor on River and Port Development, "With the most extensive river system of any comparable area in the world, and the urgent need for more and cheaper transportation, it is astonishing that internal waterways have not been developed in Brazil."[3] Initially, except for the case of the Amazon River, little value was seen for use of the rivers as transportation media in support of the export-oriented economies of the different areas of Brazil, due to the fact that except for the Amazon and

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[1]Charles E. Dickerson, Jr., "Brazil - Economic Review, 1951," Business Information Service - World Trade Series, No. 193, April (Washington: U. S. Department of Commerce, 1952), p. 18.

[2]Simon G. Hanson, Economic Development in Latin America (Washington: The Inter-American Affairs Press, 1951), p. 336.

[3]Robert M. Warren, "Development of Inland Waterways," Brazilian Technical Studies, Institute of Inter-American Affairs, Foreign Operations Administration (Washington: U. S. Government Printing Office, 1955), p. 244.

San Francisco Rivers, the navigable parts of the large rivers of Brazil, flowed either parallel to the coast or to the interior of the country instead of following a direct line to the ocean. This divergence from the norm, however, instead of being detrimental to the use of river shipping, could instead be transformed into a tremendous asset in the economic integration of the various parts of Brazil.

Another reason for the lack of river development in Brazil is the normally high initial capital outlays needed for dredging and the building of locks and dams. In many cases the capital needed would have been less than the initial outlays per mile made on railroads in Brazil; however, there was no gold or sterling profit-guarantee made by the state or national government, as was the case with railroads.

The fact that only one small project, out of forty-two drawn up by the Joint Brazil-United States Development Commission, was concerned with river shipping does not indicate that there was no immediate need for its further development. On the contrary, as reported in his article, Robert W. Warren states that complete engineering surveys of the river systems are necessary before any definite plans can be made for the extensive use of the rivers in the field of transportation. As of the date of his report, there had been engineering surveys made only on

two of the rivers in Brazil--the Jaqui and San Francisco; however, a formal recommendation was made for the necessary engineering surveys to be performed as soon as possible on twelve river projects covering seven river systems.[1] He further predicted that the detailed surveys recommended should confirm the feasibility of developing navigation on these rivers.[2] However, the final project recommended by the Joint Commission was not for improvement of river channels but instead only for purchase of new barges and tug boats, and for spare parts for use on existing vessels.[3]

River and coastal navigation could supply the most economical method for the transportation of goods, and is especially adapted to the handling of bulk raw materials and farm and forestry products. The proximity to these large rivers of extensive commercial quantities of Brazilian lumber, coal, manganese, and iron ore seems to confirm the urgency for developing the river transportation system of Brazil.

In 1952 a major limitation to any effective improvement in river and coastal navigation was the relatively small appropriations allowed by congress to the federal organization concerned with such activities, the National Department

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[1]Warren, pp. 243-47.

[2]Ibid., pp. 246-47.

[3]Institute of Inter-American Affairs, p. 277.

of Ports, Rivers and Canals.[1] A succinct description of the situation at the beginning of the period of this study may be found in a publication of the research institution, Fundação Getúlio Vargas, viz., "maritime navigation remained in the same stagnation as before."[2] The above statement was made in a study of transportation in Brazil over the period 1953-1955.

Highway Transportation

Although Brazil's land area is greater than that of the United States excluding Alaska, and its population in 1952 was greater than 55 million, total highway mileage was only 187,000, of which only 2,200 miles were paved.[3] It may be added, however, that the paved highway increased by more than 300 per cent in the four-year period from 1948 to 1952, but almost half of this new pavement was laid in the state of São Paulo.[4] This accelerated highway program was initiated by Decree Law on December 27, 1945, which reorganized the National Highway Department, giving it

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[1]Warren, p. 253.

[2]Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., Year IV, No. 1, p. 48.

[3]Institute of Inter-American Affairs, p. 90.

[4]Galyn G. Wilkins, "Comments on the Brazilian Highway Problem," Brazilian Technical Studies, Institute of Inter-American Affairs, Foreign Operations Administration (Washington: U. S. Government Printing Office, 1954), p. 267.

financial and administrative autonomy.[1] Other agencies busy in the field of highway development were the separate state highway departments, land development companies, special state development departments, the Brazilian army, and the National Drought Relief Agency in the Northeast.[2] This law also supplied the money necessary for the road program, through a petroleum tax,[3] 40 per cent of which was designated for use by the National Highway Department and 60 per cent for the state and municipal highway departments.[4] Initially only 10 per cent of total funds were allocated to maintenance of the roads. The resulting tendency toward negligence of maintenance after the initial construction was responsible for a doubling of the allotment for maintenance and paving of existing highways.[5]

As a result of the above-mentioned highway improvements, plus the inefficiency of the railroad and coastal shipping, the trucking industry made great strides during the 1946-1952 period. However, despite the advances made, highway development in Brazil was still far from adequate in 1953.

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[1] Ibid., p. 266.

[2] Ibid.

[3] Institute of Inter-American Affairs, p. 90.

[4] Hoare, p. 138.

[5] Institute of Inter-American Affairs, p. 90.

Although transportation by pipeline may not be classified as highway transportation, there are some similarities, viz., both are usually overland and tank trucks and pipe lines usually perform the same service for the same or similar commodities. Before 1950 there was no real pipeline transportation except for special interplant connections as found in the petroleum fields of Bahia. Brazil's first commercial pipeline system was approved by the federal government in 1942, for the connection of the port of Santos with the industrial city of São Paulo--25 miles away and 2,000 feet up. The plan involved the construction of a ten-inch line for "white" or refined petroleum products, and an eighteen-inch line for "black" products, e.g., fuel oil. Although small, this pipeline system, which was completed in 1952, was very important to the industrial development of the São Paulo city area, which was previously completely dependent on a one-meter gauge railway and highway trucks for delivery of all of its liquid fuel.

Airlines

Unlike her weak position in the other forms of transportation, in 1953 Brazil was one of the leading nations in the world in the volume of air traffic, being surpassed only by the United States, United Kingdom, and Australia in scheduled airline traffic. This development of airways was helped by the great distances, meager development of surface transportation, high costs and poor services of

other transport media, and the low-cost war-surplus airplanes available from the United States.[1]

In 1953 Brazilian airlines flew over 95 million kilometers, carrying over 1,482 million passenger-kilometers, 22.6 million ton-kilometers of baggage, 49.9 million ton-kilometers of freight, and 2.6 million ton-kilometers of mail.[2] Yet in spite of these statistics, commercial aviation in Brazil was a sick industry in 1953, especially with respect to industrial earnings. The profit-making airline was an exception in Brazil. This condition was in part due to the lack of governmental regulation of rates, routes, and standards of operations. There was also need for government-furnished communication and navigation facilities, and for airport financing. The low-route density was another factor contributing to the low financial return of airlines, although some of its effect was alleviated by a government subsidy for flying to sparsely settled sectors in the interior.[3] Since 1950 government subsidies have been paid to Brazilian airlines flying international routes; in 1951 the subsidy was ten cruzeiros per kilometer flown beyond the borders of Brazil.[4]

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[1]Hansen, p. 334.

[2]IBGE, Anuário Estatístico do Brasil - 1955, p. 221.

[3]Dickerson, pp. 15-16.

[4]Ibid. This would represent about seventy cents U. S. per mile in 1951.

Before 1946 the Brazilian government's policy on commercial aviation was that of almost complete laissez faire. Anyone was free to operate a line anywhere and at almost any rate. Because of the abundance of underpriced C-47's available as war surplus, many new airlines were formed during the 1945-1946 period. This brought about indiscriminate price cutting, with the resultant passenger rates about the same as those in the United States even though the costs of operation were much higher. The higher expenses were a result of the following conditions: (1) operation on only one-third pay-load average (compared to a 70 per cent average in the United States); (2) navigation and communication facilities were required of each airline instead of being supplied by a government agency (CAA or IFF in the United States); and (3) higher labor costs despite lower wage rates.[1]

During 1946-1947 the government of Brazil made allocations of routes, issued a rate schedule, and prohibited the organization of new lines with paid-in capital of less than fifty million cruzeiros (the then current equivalent of two and one-half million dollars). However, enforcement was very lax and rate-cutting continued, along with non-scheduled planes competing with the scheduled lines.[2] By

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[1]Hansen, pp. 34-35.

[2]Wythe, p. 27.

1953 some stability was achieved when the government issued a decree giving national companies the legal status of public utility enterprises.[1] Although the rates had become uniform under federal regulation, as with the railroads and coastal shipping, the rate schedules lagged behind the operation costs. The result has been the lack of availability of domestic or foreign capital for an industry in dire need of foreign exchange for new equipment and spare parts.[2]

In summation, it may be stated that as of 1953, there had been recent improvement and additions in all fields of transportation, especially in highways and airlines; however, the whole and each nominal part of the industry was in urgent need of rehabilitation and/or overhaul.

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[1] Institute of Inter-American Affairs, p. 92.

[2] Ibid., p. 93.

Chapter 4

THE FINANCIAL AND LABOR MARKETS

The institutional picture of any country would be incomplete without some description of the financial and labor markets. With respect to the financial market, its weakness or apparent nonexistence, instead of obviating its presentation, supplies the raison d'entre in a study of monetary and fiscal policies.

The need for an institutional outline of the operations of the most important factor of production is self-evident. Hence, treatment of the recent history of labor legislation, unionism, and the consequent utilization of labor will be made in this chapter.

The Financial Market

As reported in 1964, the money market was very narrow and the capital market almost nonexistent; it is therefore necessary that an explanation be made for this situation, along with a more complete description.

Capital Formation

Since 1946 and through 1960, the rate of gross investment as a percentage of Gross National Product has been quite high, varying from a low of 11.5 per cent in 1950 to a high of 20.4 per cent in 1952 and 1954. Upon omitting inventory variations, one finds a more meaningful picture

of capital formation whose range of percentages of gross national product is much smaller, varying from 13.1 per cent in 1953 and 1957 to 17.4 per cent in 1947. This great difference in the ranges of percentages of Gross National Product, between Gross Formation of Capital and Gross Formation of Fixed Capital, was mainly caused by the inclusion in the former of the highly volatile inventories of coffee. The magnitude of coffee inventories was the result of the government's valorization program for coffee, whereby each year the Brazilian government buys and stores the coffee that exceeds the predetermined amounts for export, after the allowance is made for domestic consumption. This is not a recent program, having been initiated in 1906 when Brazil supplied four-fifths of the world's coffee exports. The only innovation inherent in the current operation is that the export amounts are now determined by an international group of coffee growers and consumers, instead of by Brazil unilaterally.

Upon perusal of Table 17, it can be inferred that, especially during the years 1947, 1948, 1949, and 1950, the coffee crop was not large enough for total demand; therefore, additional supplies for export were obtained from government stocks accumulated in prior years. Otherwise, the reduction of aggregate inventories would have been impossible during the four-year period of expansion following the great war.

The coffee tree requires about five years after planting for full production and continues as an efficient producer from eight to sixty years, depending on land, climate and plant stock. These conditions set the stage for the overproduction in the 1930's that lasted throughout the whole depression decade and into the World War II period through the year 1944. Upon termination of the war in 1945, coffee exports expanded greatly to the natural markets of North America and Europe. The result was underproduction for Brazil's export market during the 1947-1949 period, despite the fact that coffee production had increased during this period. The 1949 shortage was due to the combination of a shortage of reserves plus a severe drought in the coffee production area.[1] In view of the many variable factors affecting the size of stocks of coffee, it can be seen that the gross formation of fixed capital is a much more dependable measure of capital formation in Brazil than the total gross formation of capital which includes coffee inventory variations.

During the 1953-1963 period the government participation in gross fixed capital formation was very prominent, never falling below 22 per cent of total fixed capital investment. After 1956 government participation in capital

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[1]José P. Martinez, Economic Development in Brazil 1945-1950, Pan American Union, Department of Economic and Social Affairs, Division of Economic and Social Research (Washington: Pan American Union, 1950), p. 17.

Table 17

Gross Formation of Capital 1947-1963

Year	Gross Formation of Fixed Capital		Inventory Variations*		Gross Formation of Capital	
	Billion Cruzeiros	Per cent of GNP	Billion Cruzeiros	Per cent of GNP	Billion Cruzeiros	Per cent of GNP
1947	28.4	17.4	- 2.8	1.7	25.6	15.7
1948	30.0	16.3	- 0.7	0.4	29.3	15.9
1949	32.3	15.1	- 4.1	1.9	28.2	13.2
1950	33.6	13.4	- 4.7	1.9	28.9	11.5
1951	49.2	16.2	8.6	2.8	57.8	19.0
1952	54.4	15.6	17.0	4.9	71.4	20.4
1953	55.8	13.1	1.4	0.3	57.2	13.5
1954	91.4	16.6	21.1	3.8	112.5	20.4
1955	99.2	14.4	13.6	2.0	112.8	16.4
1956	117.0	13.3	11.5	1.3	128.5	14.6
1957	137.9	13.1	32.3	3.1	170.2	16.2
1958	181.0	13.9	27.5	2.1	208.5	16.0
1959	288.0	16.1	51.0	2.8	339.0	18.9
1960	399.7	16.7	50.1	2.1	449.8	18.8
1961	600.2	17.3	48.5	1.4	648.7	18.7
1962	893.7	16.4	106.4	2.0	1,000.1	18.4
1963	1,579.9	16.6	100.2	1.1	1,680.1	17.6

*Including coffee.

Source: IBGE, Anuário Estatístico do Brasil - 1962, 1966, pp. 199, 305.

Table 18

Government Participation in Gross Fixed Capital Formation 1953-1963
(Figures in billions of cruzeiros)

Year	Gross Fixed Capital Formation	Government Participation	Percentage by Government
1953	55.8	15.4	27.6
1954	91.4	20.9	22.9
1955	99.2	22.3	22.5
1956	117.0	26.8	22.9
1957	137.9	47.4	34.4
1958	181.0	68.5	37.8
1959	288.0	85.5	29.7
1960	399.7	126.5	31.6
1961	600.2	170.6	28.4
1962	893.7	313.6	35.1
1963	1,579.9	440.3	27.9

Source: IBGE, Anuário Estatístico do Brasil - 1964, 1966, pp. 268, 305.

formation ranged from a low of 28.4 per cent in 1961 to a high of 37.8 per cent in 1958, when the government was enmeshed in the building of the new capital of Brasília (see Table 18 for details).

Although all total government expenditures are not a direct measure of capital formation, they do often have an effect on the ultimate formation of capital. Total government expenditures, excluding the profits or losses in its sales or purchase of surplus coffee, ranged from a low of 16.9 per cent of Gross National Product in 1955 to a high of 21.5 per cent in 1962. After 1956 the overall average size of government expenditure rose to almost 20 per cent of Gross National Product for the entire seven-year period ending with 1963 (see Table 19 for details).

The functional distribution of fixed capital formation during the 1949-1958 period should be of more than cursory interest in this study. As shown in Table 20, transportation was the big recipient, surpassing the manufacturing industry by almost 100 per cent. The relative weakness of both agriculture and power was evident, as each represented only 9 and 10 per cent respectively of total fixed capital formation during that decade. However, there was a considerable increase in the development of electrical power capacity during the subsequent five-year period. These operations will be covered in greater detail in the next two chapters.

Table 19

Government Expenditures in Investment and Consumption 1953-1963 (Figures in billions of cruzeiros)

Year	Government Consumption Expenditures*	Government Fixed Capital Expenditures	Total Government Expenditures*	Gross National Product	Government Expenditure as % of GNP
1950	32.0	11.7	43.7	251.1	17.4
1951	38.1	12.1	50.2	304.0	16.5
1952	45.1	14.3	59.4	349.6	17.0
1953	65.0	15.4	80.4	425.2	18.9
1954	75.4	20.9	96.3	550.6	17.5
1955	94.0	22.3	116.3	689.3	16.9
1956	130.4	26.8	157.2	880.3	17.9
1957	152.7	47.4	200.1	1,053.2	19.0
1958	180.5	68.5	249.0	1,303.6	19.1
1959	249.0	33.5	337.5	1,791.4	18.8
1960	370.7	126.5	497.2	2,396.8	20.7
1961	541.6	170.6	712.2	3,475.1	20.5
1962	852.6	313.6	1,166.2	5,435.6	21.5
1963	1,563.4	440.3	2,003.7	9,519.8	21.0

*Does not include inventory variations.

Source: IBGE, Anuário Estatístico do Brasil - 1964, 1966, pp. 268, 305.

Table 20

Functional Distribution of Fixed Capital Formation 1949-1958

Fields of Investment	Percentage of Distribution
Transportation	45
Manufacturing	24
Power	10
Agriculture	9
Services	12
Totals	100

Source: Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economico, Programa de Ação Economico do Governo: 1964-1966 (Brasilia: Planning Ministry, 1964 [Mimeographed]), p. III-10.

The amount and the type of foreign investment is always an important determinant to capital formation in a developing country such as Brazil. The general over-all picture of capital movement to and from Brazil, of direct foreign investments and of loan capital, may be found in Tables 21 and 22. As presented by Werner Baer and Isaac Kerstenetzky,[1] foreign capital never presented more than 20 per cent of the total investment over the period 1953-1962, and often was well below 20 per cent. The wide

[1] Werner Baer and Isaac Kerstenetzky, Inflation and Growth in Latin America, A Publication of the Economic Growth Center, Yale University (Homewood: Richard D. Irwin, Inc., 1964), p. 365.

Table 21

Movements of Direct Foreign Investments and Earnings 1952-1963
(in millions of U. S. dollars)

Years	Capital Imports[a]	Return of Profits	Balance
1952	9	15	- 6
1953	22	94	- 72
1954	11	53	- 42
1955	43	44	- 1
1956	89	24	65
1957	143	26	117
1958	110	31	79
1959	124	25	99
1960	99	40	59
1961	108	31	77
1962	71[b]	18[b]	53[b]
1963	31[b]	7[b]	24
Totals	860[b]	400[b]	482[b]

[a]Exclusive of reinvestments.

[b]Estimates.

Sources: Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economico, Programa de Ação Economico do Governo 1964-1966, p. XVI-10; and Banco do Brasil, Relatório de 1964, p. 354.

Table 22

Movement of Foreign Loan Capital and Its Amortization 1952-1963
(in millions of U. S. dollars)

Years	Loans	Amortization	Interest Payments	Balance
1952	110	61	21	28
1953	551	46	31	472
1954	369	134	44	191
1955	145	198	34	- 87
1956	248	215	67	- 34
1957	307	242	67	- 2
1958	626	324	58	244
1959	589	398	91	100
1960	763	410	106	247
1961	874	564	107	203
1962	358	282	113	- 37
1963	259*	364	63*	-186*

*Estimates.

Sources: Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Econômico, Programa de Ação Econômico do Governo: 1964-1966, p. XVI-10; and Banco do Brasil, Relatório de 1964, p. 354.

variation of direct capital imports and return of profits was strongly influenced by three factors: (1) the changes in government regulations dealing with the exchange rates applicable to return of profits, (2) government regulations that allowed the importation of machinery and equipment for industry favorable to the economy, and (3) the positive or negative (chiefly the latter) influence of government actions on the foreign business community.

Decree No. 30,363 of January, 1952, limited the transfer of profits on foreign capital to 8 per cent of the capital imported from abroad, exclusive of any reinvested capital.[1] This decree almost stopped the return of profits because of the very high exchange rate of cruzeiros to the dollar required for this transaction. This situation was changed by the Free Exchange Law of January, 1953, whose prime purpose was the stimulation of entry of foreign capital into Brazil. Under this law the transfer of profits was allowed under the free rate.[2] The limitations on the return of profits were lowered with the new determination of allowances made for inflation similar to the determination of inflation allowances on excess profits tax (as was presented in Chapter 2). There was a massive increase in return of profits in 1953, followed by a continuous

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[1]Instituto Brasileiro de Economia, Conjuntura Econômica, Março, 1953, p. 56.

[2]Ibid., pp. 55-57.

substantial return of profits until 1962, when the imports of direct capital investment had slowed down appreciably because of the general dissatisfaction or distrust of the Brazilian government by the foreign business community.

During this period the government action most responsible for increasing direct capital investment into Brazil was SUMOC Instruction 113, initiated in January, 1955.[1] This regulation, with its replacements, lasted until July, 1961.[2] In essence this instruction allowed the entrance into Brazil of certain machinery and equipment for new plants, or for the modernization of existing plants producing goods or services considered of immediate need to the economy of the country. The ability to import without exchange coverage was of great importance during this six-and one-half year period, especially during the middle years when the agio system increased the costs of imports by as much as four times its free market value, depending on its import category. The effect may be noted by observing in Table 20 the expansion of direct capital investment from 11,000,000 dollar equivalents in 1954 to 43,000,000 in 1955--the first year of Instruction 113. The subsequent increase of direct capital imports to 143,000,000 dollar equivalents in 1957 was maintained at a level of about

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[1]Banco do Brasil, Relatório de 1955, Section I, p. 63.

[2]Meara, p. 153.

100,000,000 dollars or more until 1962. During the first two years of operation, Instruction 113 was instrumental in the entry into Brazil of over 55,000,000 dollars worth of capital equipment.[1] The value of imports of capital goods without exchange cover expanded greatly during the following years, representing about 70 per cent of the value of direct capital imports, about half of which originated in the United States of America.[2] Hence it can be seen that Instruction 113 was evidently very helpful in increasing the size of capital investment from foreign sources.

Except for the fields of petroleum exploration and refining, and possibly marketing, Brazil has little or no hostility to foreign investment, especially in the field of manufacturing.[3] The government secured monopoly control of the petroleum industry, except for final distribution of its products, upon the establishment of Petrobras, a government-controlled stock company, in October, 1953.[4] Petrobras has a government-granted

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[1]Banco do Brazil, Relatório de 1956, Sectima IV, pp. 20-21.

[2]Hoare, p. 4.

[3]Jorge Able Ramacho, Brazil, an Interim Assessment, Second Edition (London and New York: Royal Institute of International Affairs, 1954), p. 117.

[4]Hoare, p. 105.

monopoly on all exploration for petroleum, gas, and other fluid hydrocarbons, and for the refining and ocean and pipeline transportation of all petroleum products, except for the refineries, pipelines, and ocean tankers in use before the installation of Petrobras.[1] Foreign stockholders or foreign-controlled companies are not allowed to hold stock in Petrobras, thereby eliminating a fertile source of foreign capital. This statement is underlined by the fact that a large percentage of Brazil's hard currency is needed each year to import crude petroleum and refined petroleum products.[2]

The Stock Market

The stock exchanges in Brazil are government entities under the direction of a senior officer of the state in which the exchange is located.[3] In 1953 there were stock market exchanges in several of the largest cities of Brazil, the most important exchanges being located in the cities of São Paulo, Rio de Janeiro, Pôrto Alegre, Recife, and Santos, in descending order. Over 96 per cent of weighted transactions, however, were performed in the

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[1] Ibid.

[2] Ibid., p. 161. Twenty per cent of imports for the years 1956-1959 consisted of crude petroleum and petroleum products or gas, almost half of which was crude petroleum.

[3] Ibid., p. 14.

Table 23

Transactions within the Principal Stock Markets
Selected Years - 1938 to 1963
(Values in Billions of Cruzeiros)

Year	Value of Transactions	Weighted Percentages of Transactions				
		Federal	State	Municipals	Public	Private
1938	0.7	38.4	38.8	10.0	87.1	12.9
1945	1.8	44.2	23.5	3.4	71.1	28.9
1948	1.9	21.6	41.2	1.9	64.6	35.4
1953	4.0	13.8	31.9	1.2	46.8	53.2
1954	5.9	11.4	46.1	1.0	58.5	41.5
1957	5.4	12.6	20.9	8.8	42.2	57.8
1958	8.0	17.0	13.4	22.1	52.6	47.4
1959	9.2	7.0	14.6	20.9	42.5	57.5
1960	18.7	7.4	8.1	6.3	21.8	78.2
1961	44.6	40.9	3.6	2.7	47.2	52.8
1962	104.3	21.1	2.9	0.8	24.7	75.3
1963	177.5	15.5	2.6	0.5	18.7	81.3

Note: Due to rounding, additions may appear to be in error.

*Includes the city of Rio de Janeiro (ex Federal District or the current state of Guanabara).

Sources: IBGE, Anuário Estatístico do Brasil - 1954, 1955, 1960, 1962, 1964, pp. 225, 249, 149, 135, 227.

exchanges of São Paulo and Rio de Janeiro, with São Paulo responsible for slightly over 50 per cent of the total.[1] By 1963 the São Paulo and Rio de Janeiro exchanges still controlled the great majority of weighted transactions--over 93 per cent--with São Paulo's share having risen to over 58 per cent of the total.[2]

Initially the market had consisted mainly of the government bond market--federal, state, and municipal. In 1938 the public sector represented 87 per cent of the trading on the stock market. This preponderance of government obligations before World War II consisted chiefly of federal and state bond transactions of about equal weight, with municipal issues, including those of the Federal District, representing about 10 per cent of total weighted transactions of the market in 1938.[3] There has been a rambling increase in private participation in the stock market--from 13 per cent in 1938 to 29 per cent in 1945, 53 per cent in 1953, and 81 per cent in 1963 (see Table 23). No increase in relative weight of private transactions took place in 1945 despite the fact that over 36 per cent of the total weight of transactions were represented by federal

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[1]IBGE, Anuário Estatístico do Brasil - 1954, p. 225.

[2]IBGE, Anuário Estatístico do Brasil - 1964, p. 227.

[3]IBGE, Anuário Estatístico do Brasil - 1954, p. 226.

war bonds. By 1953 the relative value of federal securities had lowered to about 14 per cent of the total market; however, most of the slack in public securities was taken up by state obligations then representing almost 32 per cent of weighted transactions. The great majority of the state securities were bonds of the state of São Paulo, which were the result of the deficit financing of the state transportation system and of the state administration.[1] In 1953 the deficit incurred by the state of São Paulo represented about 90 per cent of the current deficits of all the states of Brazil.[2]

Upon referral to Table 23, it may be observed that although the value of transactions in states' securities represented 46.1 per cent of the total in 1954, from 1957 there was an almost steady drop to 2.6 per cent in 1963. There is a similar picture of the trend in the exchange of municipal obligations, except that the high point of 22.1 per cent evolved in 1958, and was followed by a steady annual decrease to 1/2 of 1 per cent in 1963. From the years selected, the pattern of participation of federal obligations apparently does not follow any definite secular trend. The peak of 44.2 per cent existed in 1945, and was followed by a staggered fall to 7.0 per cent in 1959,

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[1] Ibid., pp. 225-229.

[2] Ibid., p. 492.

a subsequent sharp rise to 40.9 per cent in 1961, and a final step-by-step drop to 15.5 per cent in 1963. The high percentages of municipal security transactions in 1958 and 1959 were almost completely the result of tradings in bonds of the Federal District (Rio de Janeiro) and of the city of São Paulo.[1]

The shift, in 1961, of about 25 per cent of transactions from the private field to that of the public was chiefly due to the introduction of the Banco do Brasil Import Bills by the new foreign exchange regulations in SUMOC Instruction 204 of March 13, 1961.[2] These negotiable import bills (120-day bills) were received by exporters from the Exchange Department of the Banco do Brasil as payment for the first eighty cruzeiros per dollar of the official "free" exchange rate.[3] As the amount payable in these bills was, step by step, automatically reduced beginning July 1, 1961; and as the exporters of coffee and cocoa were not subject to this ruling, only for the year 1961 were the Banco do Brasil Import Bills the most actively traded security of the stock market,

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[1]IBGE, Anuário Estatístico do Brasil - 1960, pp. 149, 151, 154.

[2]Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., May, 1961, p. 20.

[3]Ibid., p. 154.

representing over 45 per cent of weighted transactions on the São Paulo exchange.[1]

Until 1960 the private sector of the stock market was largely represented by exchanges of equity shares, with debentures ranging from 1 to 5 per cent of the private sector, followed by mortgages ranging between 1 and 2 per cent. In 1960, with the initiation of the use of the Bill of Exchange as partial payment to exporters by the Exchange Department of the Banco do Brasil, this form of paper immediately became popular, and in 1962 and 1963 was the most actively traded type of security on the stock market, representing about 50 per cent of weighted transactions of the São Paulo exchange in 1962 and slightly over 48 per cent in 1963. It should be mentioned here, however, that the São Paulo exchange reports Bills of Exchange as being part of the private sector.[2] If these bills had been reported as government paper, then the peak year for the private sector would have been 1961 with about 62 per cent of weighted transactions; and in the terminal year of 1963, the private sector would have been credited with only 52.8 per cent of load (see Table 23). Hence the public sector is still a very important part of the

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[1]IBGE, Anuário Estatístico do Brasil - 1964, p. 227.

[2]Ibid.

stock market even in the final years of this study; that is, provided that we disagree with the accounting system of the São Paulo exchange and list Bills of Exchange as government paper despite the fact that they have been issued by a department of the largest commercial bank of Brazil, a slight majority of whose shares happen to be owned by the government of Brazil.

In 1953 sixty-seven investment companies were registered in Brazil. Although thirteen of these companies were purely real estate or subdivision development firms, normally the majority of investment companies avoid real estate investments. Of the real investment companies (non-real estate), only twenty-three were operating in January, 1953.[1] The first open-end investment fund was established in 1957, and by 1962 had 150 offices located in various sections of Brazil.[2] The breadth of the private sector of the stock market has been widened appreciably by the offer of equity shares to the public by many previously family-owned businesses, as well as by several foreign branches of American companies in Brazil in the fields of power, automobiles, and chemicals.

Unlike the United States, the money market of Brazil operates within the stock market. Despite the increase in

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[1]Instituto Brasileiro de Economia, Conjuntura Econômica, Junho, 1953, pp. 53-55.

[2]Meare, p. 15.

activity of the public and private sectors of the market in Brazil, the money market per se has not developed enough for consideration of the open market as one of the effective fields of monetary policy in Brazil. As stated by the National Planning Ministry of Brazil in 1964, "In many countries, however, not at present in Brazil, there is a fourth essential factor to regulate: the policy of 'open-market operations.'"[1]

Finally, an indication of the weakness of the capital market concerning government obligations can be found in the variations of market quotations from year to year and within shorter periods of time. In 1954 average quotations of federal obligations were as low as 62 per cent of nominal value, with state obligations as low as 46 per cent.[2] By 1959 the average quotes of certain federal paper had fallen to 54 per cent of nominal value and state securities were also down below 41 per cent.[3] Of course, inflation is bound to have its effect on long and medium term paper, and before 1960 almost all government obligations were either medium or long term. In 1962 and 1963, however, the 120-day Import Bills with a nominal

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[1]Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economica, p. IX-5. Note: Translation by author.

[2]IBGE, Anuário Estatistico do Brasil - 1955, p. 251.

6 per cent return were often quoted at 85, or 15 per cent return in less than 120 days, due to the high rate of inflation evident (between 62 and 81 per cent per annum).[1] Among other factors limiting the availability of government obligations in the capital market were the restrictions placed on the Ministry of Finance and the Banco do Brasil concerning the issue of bonds and other loan instruments; the result was the issue of more paper currency, which is not a marketable item in the capital market.

As the banking and tax systems have already been covered in detail in earlier chapters, one only needs a cursory glance at the labor market for the completion of the picture of the institutional structure of Brazil.

The Labor Market

The Labor Force

In general, the labor market in Brazil suffers from a lack of basic education for the masses, especially in the interior and away from the large cities. Despite the compulsory education program of the federal government and the rather intensive and vociferous program for literacy over the past fifteen years, Brazil in 1963 still had an illiteracy rate of about 50 per cent for the population over fourteen years of age. The resultant problem is an almost acute shortage of skilled and semiskilled industrial

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[1]Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economico, p. IV-2.

laborers. Of course, there is also a shortage of other types of skills, e.g., medical technicians, accountants, stenographers, school teachers, college professors, skilled farm labor, medical doctors, engineers, industrial managers, and economists.

The poor health of the average Brazilian is another delimiting factor that is doubly effective because it is largely responsible for the low efficiency and low life expectancy of a trained worker. The inadequate diet and the lack of medical care may be considered as the principal reasons for this poor health. The low standard of living, or better said, the poverty of the people, could be the cause of the bad diet and possibly an underlying factor to the dearth of medical care, principally in rural areas where the standard of living is lowest. Hence the root of the whole problem appears to be the lack of purchasing power of the average man, especially in the rural areas. and in 1958 60 per cent of the labor force was still engaged in agriculture and extractive industries, and therefore still living in rural areas.[1] Although 23,000,000 workers were listed by the National Economic Council as being members of the economically active population, only 10,500,000 were wage earners as about 6,000,000 each were self-employed or unpaid family members,

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[1]Meare, p. 29.

and over 1,000,000 were employers. If managers, owners, members of professions, and members of the armed forces are excluded, only 16 per cent of the labor force has received specialized training.[1]

Vocational training in the secondary schools is performed in the fields of industry, agriculture, and commerce. The basic courses vary from two to four years, and the advanced courses from two to three. Skilled and semi-skilled industrial workers have been obtained from the 110 training schools of an employer organization, the National Confederation of Industry. The SENAI (National Industrial Apprentice Service) schools were started in 1942 and are financed by a compulsory payroll tax. The enrollment in 1958 totaled 27,634 and consisted mainly in the training of apprentices, ages 14 to 18, and sons of workers, ages 12 to 14, chiefly in the fields of maintenance and repair of motors and vehicles.[2] A similar program for workers in the field of commerce was initiated in 1946 by the National Confederation of Commerce. The severe shortage of middle-level administrative employees has been alleviated somewhat by on-the-job training, chiefly in the larger companies, and by the School of Business Administration of the University of São Paulo established in

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[1]Ibid., pp. 29-30.

[2]Ibid., p. 32.

São Paulo with the aid of Michigan State University under contract with the United States Foreign Operations Administration in 1954.

Labor Organization

The labor organizations were developed in Brazil during the depression of the 1930's under the Vargas regime, with the operation of the employee and employer associations under control of the Labor Ministry of the federal government. The Consolidation of Labor Laws was promulgated in 1943 and has since been revised several times.[1] In the meantime, the new federal constitution declared that the labor unions were to be free occupational organizations, not under control of nor regulated by the laws of the federal, state, or local governments. However, as the die had been cast by the previously written Consolidation of Labor Laws which regulates the systems of labor unions and employer associations, there has been little or no change in the operation and regulation of unions as a result of the Constitution of 1946.[2]

The syndicates are on a city-wide or district (within a large city) basis and are organized per industry instead of by trade. The labor federation is organized

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[1]American Chamber of Commerce in Brazil, Consolidation of the Brazilian Labor Laws - 1953 (São Paulo: Editora Cupolo, 1953), passim.

[2]Moore, p. 33.

by states or regions and must contain at least five syndicates of identical or related industries.[1] The labor confederation has a national base and must contain at least three federations. The number of confederations is limited by administrative regulation to seven, viz., (1) manufacturing industry; (2) commerce; (3) land transportation; (4) ocean, river, and air transportation; (5) communications and publicity; (6) credit institutions; and (7) education and cultural institutions.[2] The organization of employer associations and professional unions is also similar to that of the labor unions.

Membership in a syndicate is voluntary and dependent on the payment of dues determined by the syndicate. There is, however, additional financial assistance to the labor, employee, and professional associations through the syndical tax of one-day's pay for employees, collected during the month of March by the Banco do Brasil for the Ministry of Labor.[3] All employees are assessed, whether or not they are members of the syndicate. Sixty per cent of the tax collected is transferred to the bank account of the local syndicate. The federation concerned receives

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[1]Price Waterhouse and Co., Information Guide for Doing Business in Brazil (New York: Price Waterhouse and Co., 1964), p. 80.

[2]Moore, p. 33.

[3]Price Waterhouse and Co., p. 81.

15 per cent and the confederation receives 5 per cent. The remaining 20 per cent is transferred to the Syndical Social Fund of the Ministry of Labor.[1]

In 1953 there were 1,196 syndicates or local unions of employees with 807,422 members, 98 syndicates of professionale with 22,440 members, and 789 employer syndicates with 84,146 members.[2] By January, 1963, the number of syndicates and membership had grown to 1,746 employee syndicates with 1,394,761 members, 117 professional syndicates with 39,077 members, and 1,076 employer syndicates with 110,375 members.[3] Syndicates may be freely formed by the various groups of firms or individuals; however, in order to operate in its desired capacity, the syndicate must be recognized by the Labor Ministry.[4]

As almost none of the employees of industry of the primary sector (agriculture, forestry, and extractive industries) are members of syndicates, the statistics are more meaningful when we use percentages of the economically active workers of only the secondary and tertiary sectors of the economy instead of percentages of all active workers. This is especially effective in Brazil, where

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[1]Hoare, p. 33.

[2]IBGE, Anuário Estatístico do Brasil - 1955, pp. 416-17.

[3]IBGE, Anuário Estatístico do Brasil - 1964, pp. 278-79.

[4]Hoare, p. 33.

64 and 60 per cent of the economically active population was engaged in the primary sector of activity in 1950 and 1958, respectively.[1] In 1958 only slightly less than 12.5 per cent of the workers in the secondary and tertiary sectors of activity were members of employee or professional syndicates.[2]

Wages

In 1939 the Servicio de Estatística de Previdencia e Trabalho (SEPT) of the Ministry of Labor set up a method for measuring the cost of living for the lower income groups in each state and territory of Brazil with the purpose of setting up a system of minimum wages throughout Brazil. As may be traced through column one of Table 24, the Labor Ministry initiated the first minimum wage of 240 cruzeiros per month for the city of Rio de Janeiro (the highest minimum wage of the nation) in May, 1940. This was increased to 300 cruzeiros in May, 1943, and raised to 380 cruzeiros in November of the same year.[3] The subsequent minimum wage increases may be followed in Table 24. The system of minimum wages in Brazil is dependent on the SEPT cost of living surveys throughout Brazil.

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[1]Meare, p. 29.

[2]IBGE, Anuário Estatístico do Brasil - 1960, p. 279.

[3]IBGE, Anuário Estatístico do Brasil - 1964, p. 276.

There is a separate minimum wage for each state and territory, along with additional minimum wages for municipalities (counties) containing cities where the cost of living is appreciably higher than the general average of the state itself. For example, in 1954 fifty-one minimum wages were determined over the twenty-one states, four territories, and the Federal District, with one state, the territories, and the Federal District having only one minimum wage per entity, and the other states having from two to five (São Paulo) separate minimum wages. The range extended from the low point of 2.31 cruzeiros per hour in the interior of the state of Rio Grande do Norte to 10.0 cruzeiros per hour for the Federal District (city of Rio de Janeiro).[1]

In 1954 a federal regulation required that a new minimum wage schedule to determined at least every three years, and more often if inflation made it necessary.[2] This minimum wage rate does not apply to government workers whose pay rates are set by different laws. The wages of the federal government worker are normally higher than those of equivalent state and municipal workers.[3]

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[1]IBGE, Anuário Estatístico do Brasil - 1955, pp. 352-54.

[2]Price Waterhouse and Co., p. 75.

[3]Government Affairs Institute, Brazilian Labor: A Management Survey, International Studies - Foreign Labor Practices Series (Washington: Government Affairs Institute, 1960 [mimeographed]), p. 32.

Table 24

Real Minimum Wage Indexes for the City of Rio de Janeiro Selected Years from 1940 to 1963

Years	Minimum Wage in Cruzeiros	Cost of Living Index, 1940 Base[b]	Real Minimum Wage, 1940 Prices	Real Minimum Wage Index
1940	240 (May)[a]	100	240	100
1945	380	179	212	88
1950	380	299	127	53
1951	1,200 (December)[a]	334	358	149
1953	1,200	450	267	111
1954	2,400 (July)[a]	550	436	182
1955	2,400	679	353	147
1956	3,800 (August)[a]	834	456	190
1957	3,800	954	398	166
1958	3,800	1,094	347	145
1959	6,000 (January)[a]	1,234	486	203
1960	9,600 (October)[a]	2,106	456	190
1961	13,440 (October)[a]	2,912	462	193
1962	13,440	4,061	331	138
1963	21,000 (January)[a]	6,983	301	125

[a]Monthly date of new minimum wage.

[b]Arithmetic average of monthly indices.

Sources: Werner Baer and Isaac Kerstenetzky, "Some Observations on the Brazilian Inflation," Inflation and Growth in Latin America, p. 369; IBGE, Anuário Estatístico do Brasil - 1964, p. 276; and Banco do Brasil, Relatório de 1964, p. 315.

In conformance with federal laws in effect in 1960, a minimum of two-thirds of the workers must be Brazilians and two-thirds of the total salaries of any commercial or industrial organization must go to Brazilian employees.[1]

Although labor unions were given the right to strike by the Federal Constitution of 1946,[2] except for problems concerning severance liabilities of the employer, there have been few labor-management difficulties. All problems between labor and management serious enough to be presented to a court have to be handled by special federal labor courts. These courts operate on three levels: Conciliation and Judgment Boards at the local level, Regional Labor Courts, and finally, the Labor High Court in the Federal District.[3]

After an employee has been employed for longer than one year with one employer and he is discharged without just cause, according to law the employer must pay him one month's pay at his maximum rate upon discharge. After an employee has completed ten years of employment with a firm, he is considered an an employee with tenure (estabilidade) and cannot be discharged without charges

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[1] Ibid., p. 51.

[2] Ibid., p. 30.

[3] American Chambers of Commerce in Brazil, p. 169.

proved in a labor court.[1] It is extremely difficult for the employer to obtain a favorable judgment in a labor court in cases concerning severance liabilities or responsibility. As a result, many of these cases are settled out of court with the company paying the one month's pay per year for untenured employees and two months' pay per year for the tenured employee. By law the tenured employee obtains this double rate of payment if discharged without cause as determined by the labor courts, but upon conditions such that further employee-employer relations would be extremely difficult.[3] If conditions of force majeure cause the termination of a worker's employment with a firm, then the worker will receive only one-half the amount of severance pay as would be allotted under the "normal" dismissal without cause. Also, a person who has attained a position of director, manager, or other position of "immediate trust" would not have the payment benefits of tenure upon dismissal; however, he would have all of his time figured in payments as is determined for the nontenured employee.[4]

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[1] Ibid., p. 128.

[2] Government Affairs Institute, p. 46.

[3] American Chambers of Commerce in Brazil, pp. 123-28.

[4] Ibid., pp. 128-29.

Because of difficulties often encountered with employees after they become tenured, many firms have been reported as arbitrarily dismissing employees just before completion of the required ten years' employment.[1] However, if it can be proved in the labor courts that the dismissal was to prevent the securing of tenure by the discharged employee, then the employer will be required to pay the discharged employee severance pay at double the normal rate, i.e., at the rate of a tenured employee.[2] Despite the above-mentioned difficulties, it should be mentioned that some companies have been able to weather the storm; for example, in 1960 the Standard of New Jersey subsidiary in Brazil announced that 41.7 per cent of its employees had more than ten years' service.[3]

Social Security and Welfare

The social security program in Brazil is similar to that of the United States in that it provides old age, invalidity, and survivors' pensions, maternity benefits, burial benefits, sickness benefits, and hospital and surgical care for the worker, and to a limited extent, for the dependents.[4] In addition, it also supplies to

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[1]Hoare, p. 33.

[2]American Chambers of Commerce in Brazil, p. 129.

[3]Hoare, p. 33.

[4]Ibid., p. 37.

members special benefits such as low-cost consumer loans and home mortgages.[1]

The administration of social security is handled by eight institutes or autarquias (government agencies that operate outside of the regular budget) that are divided in much the same manner as are the seven confederations of the labor organizations. All but rural and domestic workers are covered.[2] The institutes make equal assessments on the worker, the employer, and on the federal government.[3] Depending on the institute involved, each assessment varies from 6 to 9 per cent of wages up to five times the highest minimum wage[4] (usually that of the city of Rio de Janeiro). In 1961 the government's contribution to social security institutes and funds was in arrears by almost 103 billion cruzeiros, and that of the employers was in arrears by some 35 billion.[5]

In addition to the social security tax, there are several other contributions to general welfare and education that the employer is required to make. They are: for health and welfare, 2.0 per cent of wages; for

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[1]Government Affairs Institute, p. 59.

[2]Ibid., p. 57.

[3]Moore, p. 33.

[4]Government Affairs Institute, p. 58.

[5]Moore, p. 33.

apprentice training, 1.0 per cent; for relief organization, 0.5 per cent; for rural social services, 0.3 per cent; and for workman's compensation, from 0.5 per cent for office workers to 7.1 per cent of wages for electricians. Industrial, commercial, and agricultural firms with more than 100 employees are required to maintain primary schools for their employees and for the employees' children or make arrangements with the Department of Education for sharing the expenses of education.[1] Although business income taxes may seem to be relatively low, industry does supply an appreciable amount of the earmarked funds for education and welfare programs, especially when directly related to their employees.

This chapter concludes the section dealing with the institutional structure of Brazil. Immediately following is the part presenting the plans and programs that have been outlined and executed shortly before and during the time-period of this report.

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[1]Meara, p. 38.

Part II

PLANNING OPERATIONS

Chapter 5

ECONOMIC DEVELOPMENT PLANS

Apparently Brazil's primary goal since the end of World War II has been the promotion of economic development. Demonstrated herein will be the specific objectives and the relative priorities of the plans and programs developed shortly before and during the period of this study--1953-1963.

As outlined by the National Planning Commission, planning in Brazil is organized on three levels: the Perspective Plan, the Five-Year Plan, and the Emergency Plan.[1] The Perspective Plan formulates the broad outlins of the quantitative and structural changes to be made over the whole economy for a long period of time (about twenty years). Within this framework, there will be successive Five-Year Plans, coordinated with the period of tenure of the respective presidents of the republic. The Emergency Plan is a collection of development projects needed to bring about a high rate of capital formation, mainly in social overhead, usually needed to bring about

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[1]Ministry of Foreign Affairs, "Economic Development Planning" (Mimeographed unpublished report received from Brazilian Embassy, Washington, 1964), p. 9.

immediate relief from severe disturbances such as galloping inflation, severe depression, or a balance of payments crisis.

With the above guidelines, it may be stated that from the beginning of the Republic of Brazil in 1889 to the end of 1963 there has not evolved a long-range global plan (Perspective Plan) for the Brazilian economy. From May, 1948, to December, 1963, although at least six plans were officially presented, not more than two of them could be considered as beyond the Emergency Plan scope. These two salient blueprints are the five-year Program of Targets of President Kubitschek, presented in January, 1956, and the three-year Plan for Economic and Social Development--the Furtado Plan--presented December, 1962.

Following is the list of these plans, along with their dates of presentation:

SALTE Plan of May, 1948

Abbink Plan of March, 1949

Joint Brazil-United States Economic Development Commission Program of December, 1953

Program of Targets of January, 1956

Plano Trienal of September, 1961

Furtado Plan of December, 1962.

Plans Presented before 1953

The Abbink Plan

In order to formulate a system of priorities for acceleration of industrial development within the country, in

1947 the government of Brazil requested planning assistance from the United States. This request resulted in the formation of the Joint Brazil-United States Technical Commission in 1948.[1] Mr. John Abbink headed the American delegation; consequently, the plan developed by this commission has usually been called the Abbink Plan. The Brazilian counterparts were headed by Dr. Octavio Gouvêa de Bulhoes--in 1965 the Finance Minister and first President of the Central Bank. The Abbink Plan is actually not a plan per se; instead it is a report pointing out the key problems or impediments to Brazil's balanced and rapid economic growth. Although this report was published in March, 1949, before the SALTE Plan was approved by Congress, it goes into great detail appraising it, usually favorably. Both the reports, that of this commission and that of the first American Technical Mission to Brazil (Cooke Mission) in 1943, were invaluable to the determination of the composition and the rough objectives of the next joint mission in Brazil, which does present an Emergency Plan.[2] In fact, the Brazilian government gives credit to both the Cooke and the Abbink missions for "a systematic survey of the general possibilities of the country, by compiling and classifying statistical data on the economy as a whole

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[1]Institute of Inter-American Affairs, p. v.

[2]Ibid., p. vi.

and on each of its sectors," and is then "expanded in the SALTE Plan."[1]

The SALTE Plan

Although the SALTE Plan was initiated before the time-period of this paper, its inclusion is apropos due to the fact that its period of operation included fiscal years 1953 and 1954 and because of its empirical value to economic technicians in the evolution and consummation of subsequent plans. The five-year SALTE Plan was presented by the President of the Republic to Congress in May, 1948, for the development of certain basic conditions considered favorable to balanced national economic growth. The name SALTE was formed by the following lead letters of the four basic projects of the plan: S for saúde or health, AL for alimento or food, T for transporte or transportation, and E for energia or energy.[2]

The original plan was for 18.3 billion cruzeiros (raised to 19.9 billion in the law) to be supplied by the federal government and 7.4 billion cruzeiros to be supplied by state and municipal governments and electric power companies.[3] The money supplied by the federal government

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[1]Ministry of Foreign Affairs, pp. 2-3.

[2]Presidencia da República, Plano SALTE, Relatório e Contas da Administração Geral (1949-1951) (Rio de Janeiro: Departamento de Imprensa Nacional, 1953), p. 6.

[3]Office of the President of the República, The SALTE Plan (Rio de Janeiro, 1950), p. M 10.

emanated from the federal budget (4.7 per cent), enforced loans on all exports, the International Bank for Reconstruction and Development (World Bank), the Export-Import Bank of the United States, and the Banque Francaise de Commerce Exterieur.[1] Although the plan was not approved by Congress until May, 1950, in anticipation of passage of the bill Congress approved the budgets of 1.3 billion cruzeiros for the year 1949 and 1.9 billion cruzeiros for 1950.[2] Actually, the SALTE Plan was started in 1949 before congressional approval of the plan per se.

The actual presentation of allocations per sector of operation as granted in the law passed in May, 1950, were:[3]

Health	2,640,056,410 cruzeiros
Food	11,345,620,000 cruzeiros
Power	3,190,000,000 cruzeiros
Total	19,909,076,410 cruzeiros.

Due to both internal and external financial difficulties during the six-year tenure of the plan, however,

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[1] Presidencia da Republica, Plano SALTE, p. 28.

[2] Ibid., pp. 13-14.

[3] Presidencia da Republica, "Plano SALTE, Lei No. 1,102 de 18 de maio de 1950, Quadro Comperativo entre as Dotações Previstas Originalmente no Plano SALTE e as Dotações Orçamentarias de 1949 e 1954" (unpublished typewritten tables [Rio de Janeiro: Presidencia da Republica, 1955]), p. II.

the final amount authorized by Congress amounted to only 10,681,178,150 cruzeiros. Relatively speaking, the transportation sector increased from 57 per cent to 79 per cent of the total, while all the other sectors fell, led by food with a drop from 14 per cent to 1.5 per cent and health with a drop from 13 per cent to 6.5 per cent. In the final operations, railroad projects constituted 70 per cent of the value of the transportation or 55 per cent of the whole program.[1]

Concomitantly with the SALTE Plan, a new plan or operation of similar nature was executed in 1952 under the direction of a new Finance Minister, Horacio Lafer. This new program was called by some the Lafer Plan for Reequipment Loans. Actually it was the program of the third joint commission, which will be discussed later.

From 1951 to 1953, inclusive, Brazil experienced current account deficits with the United States, Great Britain, and other countries of Western Europe because of Brazil's overstocking of imports during the Korean crisis. This situation developed because of the innate fear of another long period of shortages of luxuries as well as critical raw materials and semimanufactures similar to that which had recently been experienced by Brazil during World War II. This, however, was not the only reason for

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[1] Ibid.

the sharp reduction in the financing of the projects of the SALTE Plan. There was also the need to eliminate the deficit financing of the federal government because of the strong inflationary pressures that were already evident by 1951 at the beginning of Brazil's "current account" problems. When Finance Minister Horacio Lafer saw the necessity for a two billion cruzeiro cut in federal expenditures, he was able to obtain 50 per cent of the needed reduction by cutting in half the budget of the SALTE Plan for fiscal year 1951. This was doubly feasible, as the plan affected was one initiated by another Finance Minister working under the regime of a different President of Brazil.

Joint Brazil-United States Economic Development Commission

The Joint Brazil-United States Economic Development Commission was initiated on July 19, 1951, and completed its work, except for final composition and editing, on July 31, 1953. It was formally dissolved December 31, 1953.[1] This commission was composed of much larger staffs of both Brazilians and Americans than the two prior joint commissions. The United States staff was composed of specialists in the fields of transportation, management, agriculture, minerals, metallurgy, and economics. The two long-lasting and most effective operations performed

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[1]Institute of Inter-American Affairs, p. iii.

by the Joint Commission were the recommendation and plans for the formation of the Brazilian Development Bank (BNDE) and the detailed outline of the forty-one development projects that the Commission considered as most urgently needed by Brazil to insure rapid and balanced development. The ultimate aim was the creation of conditions necessary for the elimination of obstacles to an increase in the flow of investment--public and private, foreign and domestic--needed to promote economic development and furnish aid to Brazil's balance of payments problems. The forty-one projects were formed chiefly in the fields of transportation and electric energy in an attempt to pin-point the most urgently needed operations basic to its goals. These projects were influential in bringing about the sustained high rate of growth that Brazil has experienced over the subsequent eight-year period.

In his book, Brazil - An Interim Assessment, Jorge A. Camacho presents these same projects that are listed in Table 25 as the "Lafer Plan for Reequipment Loans."[1] Horacio Lafer was not the Finance Minister when the Joint Commission was approved, but he was the Minister during the period of activity of the mission. He was not, however, a member of the commission nor was he directly responsible for its work.

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[1]Camacho, pp. 115-16.

As can be observed from perusing Table 25, a shift from the SALTE Plan to the above projects would act immediately out down internally on inflationary pressures as was indicated by Jorge Camacho when he mentioned the shift from the SALTE to the "Lafer Plan." Actually the local currency costs alone were greater than 14 billion cruzeiros, and after converting the dollar costs to cruzeiros at the official rate of 18.66 cruzeiros per dollar (as was done in the SALTE Plan), the total cost in Brazilian currency is 21,854,508,186 cruzeiros, an amount even greater than the whole SALTE Plan as initially projected in the law of 1950. However, as the projects of the Joint Commission were partly the result of the United States team headed by an American with the rank of Ambassador, it should have made it easier for the foreign credit to be obtained from the Export-Import Bank, an agency of the United States government. This statement should be underlined by the fact that the Joint Commission made extensive research into broad fields of Brazilian power, transportation, agriculture, and industry, and then supplied supporting documentation through the published results of this research.

As was the case with the SALTE Plan, the projects were highly concentrated in the field of railway transportation but with electric power in a much stronger second place than in the earlier plan.

Table 25

Projects of the Joint Brazil-United States Development Commission

Project Number	Sector	Project Name	US$ Cost ($1,000)	Cruzeiro Cost (Cr. 1,000)
1	Railway	Santos-Jundaí Railroad	8,595	93,742
2	Railway	Paulista Railroad	5,979	62,295
3	Railway	Broad gauge lines of the Central Railroad	12,500	1,181,000
4	Railway	Paraná-Santa Catarina Railroad	16,886	531,159
5	Power	Rio Grande do Sul	25,000	1,004,000
6	Power	Salto Grande Hydroelectric	10,000	555,000
7	Industrial	National Alkali	9,000	380,000
8	Industrial	Barbara Metallurgical	1,860	12,000
9	Power	American and Foreign Power	41,140	1,346,000
10	Highway	Equipment for state of Rio de Janeiro	3,000	none
11	Power	Itutinga Hydroelectric	7,300	150,000
12	Power	Paulo Alfonso System	8,500	120,000
13	Agriculture	Equipment for state of Minas Gerais	5,000	none
14	Power	Avanhandava Hydroelectric	1,470	17,000
15	Agriculture	Equipment for Ministry	18,000	none
16	Agriculture	Grain storage silos	4,125	206,000
17	Port	Acquisition of dredges	26,810	none
18	Port	Equipment for Santos	3,674	349,364
19	Port	Equipment for port of Rio de Janeiro	2,112	191,000
20	Railway	Rêde Mineire Railroad	7,041	703,000
21	Railway	Northwest Railroad	4,354	425,000
22	Power	Mato Grosso Power Company	1,630	34,000
23	Railway	Suburban Service of Central	12,500	229,000

Table 25--Continued

Project Number	Sector	Project Name	US$ Cost ($1,000)	Cruzeiro Cost (Cr. 1,000)
24	Power	Piratininga Steam Plant	18,790	316,000
25	Port	Improvement of 14 ports	5,216	191,000
26	Shipping	Rehabilitation of coastal fleet	20,900	1185,000
27	Highway	Equipment for state of Parana	3,661	none
28	Railway	Leopoldina Railroad	5,334	706,000
29	Power	Santo Antonio Hydroelectric	15,916	1,061,000
30	Railway	System of the Northeast	4,342	354,000
31	Shipping	Resquipment of shipyards	4,312	117,000
32	Railway	Goiás Railroad	1,159	250,000
33	Railway	Rio Grande do Sul Railroad	11,322	446,000
34	Railway	Northeast and Sampaio Correa	10,127	422,000
35	Shipping	River Plate Shipping	1,535	115,000
36	Railway	Paulista Railway	7,619	511,000
37	Shipping	Coastal Steamship Service	2,400	none
38	Railway	Sorocaba Railroad	14,904	453,000
39	Railway	Mogiana Railroad	8,394	515,000
40	Railway	Araraquare	8,838	19,500
41	Railway	Meter gauge line of the Central Railroad	1,763	588,400
	Totals		386,008	14,039,460

Source: Institute of Inter-American Affairs, The Development of Brazil, Report of Joint Brazil-United States Economic Development Commission (Washington: U. S. Government Printing Office, 1954), pp. 255-81.

The time allowed for execution of the Joint Commission Plan was five years.[1] By February, 1954, the foreign exchange financing of fourteen of the forty-one projects had already been granted. This amounted to 179.8 million dollar equivalents. A French export bank supplied 9.6 million dollar equivalents; the remainder was supplied by the Export-Import Bank of the United States and the World Bank, as follows: Export-Import Bank, 81.2 million dollars; and World Bank, 88.7 million dollar equivalents.[2] Almost all of the local currency requirements were supplied by the newly formed National Development Bank, which obtains its loanable funds partly from a surcharge on the income tax and a tax on undistributed corporate profits, and partly through the redirection of collective savings in the form of technical reserves of insurance companies, social security funds, and Federal Savings bank deposits."[3]

As these projects are programmed to break the key production bottlenecks in Brazil, and as all foreign currency but U. S. $44,000,000 in medium-term loans was financed through long-term loans with amortization periods extending from ten to twenty-five years, there should have

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[1] Institute of Inter-American Affairs, p. 231.

[2] Ibid., pp. 255-81.

[3] Institute of Inter-American Affairs, p. 232.

evolved little inflation pressures from this program.[1] Over the five-year period the value of the whole program of around twenty-two billion cruzeiros, using the official rate, represented less than 5 per cent of total investment and less than 20 per cent of public investment. and we the local currency sources were either from tax taxes or from savings, there should have been little or no inflationary pressures directly caused by the execution of these projects. More on inflation will to presented in the next section of this work.

Because of the combination of costs in cruzeiros and dollars and the varying free rates of exchange between the two currencies, the relative value of each sector is difficult to determine. The functional distribution of the project is presented in Table 26, with the official rate of exchange used for conversions of dollars to cruzeiros. Although the official rate does not always present the correct cost in cruzeiros, in the case of government importations it usually does present the correct costs. Also there was no change in the official rate over the five-year period 1953-1957; and the official figures on costs of this and previous plans use the official rate of exchange for conversions between foreign and domestic currency.

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[1] Ibid., pp. 231-32.

In the transportation sector of the Joint Commission Plan, as in the SALTE Plan, railroad projects were predominant, representing 80 per cent of its sector. Highway development, however, having been extensively planned before the operation of the joint commission, was relegated to 1 per cent of the costs of transportation projects for the purchase of road building equipment for the states of Paraná and Rio de Janeiro. There was an increase in investment in the fields of port improvements and in the modernization of the ocean, coastal, and river fleets, as little had been projected or performed in water transportation over the past two decades. Water transportation projects covered 19 per cent of all transportation projects or 11.5 per cent of all projects.

The big change in emphasis came about with the concentration on electric power projects, chiefly hydroelectric, at the expense of agriculture and the manufacturing industry. As outlined in Tables 25 and 26, the seven power projects comprised 33.1 per cent of the projected costs of the whole program, while agriculture was limited to farm equipment and silos amounting to only 3.4 per cent of total costs, and manufacturing was represented by the construction of a basic chemical plant and a cast iron pipe plant representing only 2.8 per cent of costs. Hence it may be seen why this relatively large program for investment projects can be considered as only an emergency

Table 26

Functional Distribution of Projects of the Joint Commission for Economic Development

Economic Sectors	Percentage of Distribution	
Transportation		
Railroads	48.6	
Highways	0.6	
Water transportation	11.5	
Total transportation		60.7
Electric power		33.1
Manufacturing		2.8
Agriculture		3.4
Total		100.0

Source: Institute of Inter-American Affairs, The Development of Brazil, Report of Joint Brazil-United States Economic Development Commission (Washington: U. S. Government Printing Office, 1954), pp. 255-61.

plan when such a small percentage of projects, only 3.4 per cent, represented the most important economic sector of the country when employment figures are considered. In 1950 over one-half of all workers were still employed in agriculture.

Progress of Targets

This five-year plan was initially presented by President Kubitschek in January, 1956. It was developed and revised by the Development Council, which was created

by President Kubitschek during his first days of office in January, 1956.[1] Although most of the projects were of five-year duration, some were long-term, or at least for ten years, and of necessity needed to be carried out by the succeeding president in the same way that Kubitschek carried out projects of the Joint Commission.[2]

In effect, the Program of Targets was a plan covering the whole economy. As presented in Table 27, the projects were divided into five sectors: energy, transportation, basic industry, food, and education. Energy was predominant with 43.4 per cent of the money value of projects, followed by transportation with 29.6 and basic industry with 20.4 per cent.

The strength of the energy sector in this plan, covering electric power, nuclear energy, coal production, and petroleum exploration and refining, is partly due to its wider scope than that of previous plans. The other sectors, however, were also developed in depth, e.g., there were transportation projects in railroad construction and rehabilitation, highway construction and paving, dredging of harbors, improvement of dock storage and

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[1]Meare, pp. 22-23.

[2]Conselho de Desenvolvimento, Program of Targets (Rio de Janeiro: Presidencia da Republica, January, 1958 [mimeographed]), pp. 16-17.

Table 27

Estimated Investments for Program of Targets - 1957-1961

Economic Sectors	Costs of Domestic Goods and Services (Million Cruzeiros)	Costs of Imported Goods and Services		Estimated Aggregate Costs (Million Cruzeiros)	Per Cent of Total
		(Million US$)	(Million Cruzeiros)		
Energy	110.0	862.2	44.3	154.3	43.4
Transportation	75.3	582.6	30.0	105.3	29.6
Basic Industry	34.6	742.8	38.1	72.7	20.4
Food	4.8	130.9	6.7	11.5	3.2
Education	12.0	-	-	12.0	3.4
Total	236.7	2,318.5	119.1	355.8	100.0

Source: Conselho de Desenvolvimento, Program of Targets (Rio de Janeiro: Presidencia da República, January, 1958 [mimeographed]), p. 35.

loading facilities, additions to the merchant marine fleet, and improvement and enlargement of airport facilities. The food sector contained projects for the production of wheat, fertilizer, grain storage facilities, refrigeration warehouses, and slaughterhouses, as well as for the mechanization of agriculture. The program for basic industries included projects in the production of iron ore, ingot steel, aluminum, nonferrous metals, cement, alkalis, paper and pulp, natural and synthetic rubber, motor vehicles, merchant marine vessels, and heavy electrical and mechanical equipment.[1]

There were several other area or localized programs that were operating concurrently with the Program of Targets; however, neither their costs nor their operations were considered as part of the target program. The NOVACAP operation--the transfer of the federal capital to the interior plateau in the state of Goiás--did tie in closely with this program in that several of its highway and railway projects performed the interconnection of the new capital of Brasília with other population centers of the nation.[2] The other area programs were initiated at different times, some before and some after the formation of the Program of Targets; and even though

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[1] Ibid., pp. 9-13.

[2] Ibid., p. 19.

mose of these plans were a part of the Programa of Targets, the operations, especially of the older agencies, were considered in the determination of the projects of the latter. Quite possibly the reason for the apparent lack of stress on agriculture may be found in the strength of agricultural projects in the following area programs: the Superintendency for Planning and Economic Improvement of the Amazon (SPVEA) created in 1953, the San Francisco Valley Commission (CVSF) since 1948, the National Department for Works against the Drought (DNOCS) from 1952, the Superintendency for Development of the Southwest Frontier Region (SUFROMTE) started in 1956, and the Superintendency for the Development of the Northeast (SUDENE) which was created in 1959.[1] The programs of these area commissions as well as certain state development agencies are not to be considered as minute or unimportant parts of the whole picture, as some have been strongly backed with appreciable assured incomes. For example, DNOCS and SPVEA each have benefited from a federal constitutional allocation of 3 per cent of the federal budget in addition to other local assessments. The San Francisco Valley Commission has received a similar distribution of 1 per cent of the federal budget; and SUDENE, which now has control over DNOCS and the San Francisco Valley program, has been allocated as

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[1]Moore, p. 24.

additional 2 per cent of federal tax revenues beyond the 4 per cent allotted to the agencies under its supervision.[1]

The financing of the Program of Targets was programmed so as to eliminate or alleviate any inflationary impetus. The federal government was responsible for over half of the funds, with 39.7 per cent coming from the ordinary budget (see Table 28). The key to noninflationary impetus is the source of government funds. About 55 per cent of the funds emanating from the ordinary budget of the federal government were scheduled to be supplied from earmarked funds, as presented in Table 29.[2] The first seven funds in the table were the results of existing laws or regulations, while the last two--the Ports and Harbor Fund and the Merchant Marine Fund--were from bills added for the specific purpose of assisting in the financing of the local costs of the Targets Program.[3] Additional funds evolved from the change of the sales tax on fuel from a specific to an ad valorem rate, and as a result of the cruzeiro payments for United States surplus agricultural products being transferred into a forty-year loan to the National Development Bank.[4]

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[1] Ibid.

[2] Ministry of Foreign Affairs, p. 6.

[3] Conselho de Desenvolvimento, p. 43.

[4] Ibid., pp. 26-27.

Table 28

Sources of Local Funds for Program of Targets

Source of Procurement	Percentage
Ordinary budget of the nation	39.7
Budgets of the states	10.4
Financing by government agencies (BNDE, Banco do Brasil, etc.)	14.5
Resources of private and mixed companies	35.4
Total	100.0

*Combination state and federal government and/or private industry.

Source: Conselho de Desenvolvimento, Program of Targets (Rio de Janeiro: Presidencia da Republica, January, 1958 [mimeographed]), p. 28.

The Brazilian government created a favorable climate for direct foreign investment by means of exchange incentives for the development of certain industries, e.g., the automotive industry. There were also tax incentives for most industries initiated or expanded in underdeveloped areas such as the Northeast or the Amazon Valley. Over the span of the Targets Program there developed a substantial inflow of foreign resources in the form of loans and direct investments. As shown in Table 30, there was a large annual increase in the inflow of both foreign loan capital and direct foreign investment in 1956, the first year of the Targets Program.

Table 29

Special Funds for the Financing of the Program of Targets (in billion cruzeiros)

Earmarked Funds	Estimated Tax Collections (1957-1961 inclusive)
Highway fund--quota for the Union	8.0
Paving fund--quota for the Union	3.6
Railway fund--quota for the RFFSA	7.9
Fund for the replacement of branch railways	2.7
Federal Electrification Fund	12.8
Liquid fuel tax for Petrobras	11.0
Legal subsidies to commercial aviation companies	5.1
Ports and Harbor Fund	5.0
Merchant Marine Fund	5.7
Total	61.8

Source: Conselho de Desenvolvimento, Program of Targets (Rio de Janeiro: Presidencia da Republica, January, 1958 [mimeographed]), p. 43.

Table 30

Foreign Loans and Direct Foreign Investments Registered with SUMOC - 1955-1957 (in million U. S. dollars)

Year	Loan Capital		Direct Investment	
	Total	Earmarked for Targets Program	Total	Earmarked for Targets Program
1955	80.2	-	31.1	-
1956	253.1	230.4	55.7	33.2
1957	523.1	504.4	108.2	70.7

Source: Ministry of Foreign Affairs, "Economic Development Planning" (mimeographed unpublished report received from Brazilian Embassy, Washington, 1964), p. 7.

One item that should also be considered, however, is the very unstable political climate that had developed immediately before and during 1955 after the suicide of Vargas, the resignation of his successor, Café Filho, and the states of seige that were proclaimed to preclude the execution of a golpe planned to prevent the inauguration of the duly elected President-Elect Juscelino Kubitschek on January 31, 1956. Hence it appears that the Program of Targets was not the only cause of the greater than 200 per cent increase in foreign loans and 80 per cent increase in direct foreign investment; the tremendous improvement in political climate after the inauguration of Kubitschek very probably had its effect also. Upon reexamination of Table 30, however, it can be seen that

the size of foreign capital movements must have been greatly influenced by the Program of Targets during the program, since 94.7 per cent of registered loan capital and 63.4 per cent of registered direct foreign investment of the 1956-1957 time-period were earmarked for projects of the Targets Program.

A better view of the relative size of the Program of Targets in comparison with the largest development plan previously programmed, the Joint Brazil-United States Economic Development Program, will be gained by comparing the size of foreign costs between the two plans over the five-year span of each. By comparing the dollar equivalents between the total Joint Commission plan as shown in Table 26 with the costs of imported goods and services of the Target plan in Table 27, we find that the projected foreign currency costs of the 1957-1961 portion of the Program of Targets is greater than five times that of the whole Joint Commission Program. An important factor that should also be considered is that concomitant with the Program of Targets were the separate area and state development plans as well as the expensive operation of NOVACAP--the movement of the capital from Rio de Janeiro to Brasília. And most important, this last mentioned program did not directly cause any increase in productive capacity for the over-all economy. For example, 21.2 billion cruzeiros were invested in Brasília by NOVACAP

in 1960 alone. Total budgetary and extrabudgetary federal investments amounted to 129.0 billion cruzeiros; hence NOVACAP accounted for over 16 per cent of federal investments for that year.[1] The Program of Targets had to a great extent been implemented by the end of 1961; that is, except for the increase in production of coal and wheat and the expansion of facilities for cold storage and meat packing. Ninety per cent of the electric energy capacity was reached; road building targets were exceeded; and the targets for wood pulp, cement, steel, petroleum, shipbuilding, and automobiles and trucks were all met. The most serious limitation of the Targets Program was its lack of integration with the over-all monetary, fiscal, and exchange policies of the government. This weakness led to inflationary pressures and balance of payments difficulties that lessened the full effectiveness of the program.[2]

Plano Trienal of 1961

On August 5, 1961, President Janio Quadros created the National Planning Commission with the responsibility for the formation and the implementation of a national development plan. Quadros resigned August 25, 1961; and

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[1]Instituto Brasileiro de Economia, Conjuncture Economique, Int. Ed., February, 1961, p. 62.

[2]Ministry of Foreign Affairs, p. 8.

in early September the new Prime Minister, Tancredo Neves, presented the Plano Trienal to Parliament.[1] This three-year plan was organized for the multilateral purposes of reducing the current inflationary pressures within the nation; creating conditions for broader distribution of the fruits of development; reducing regional disparities; intensifying governmental action in the fields of scientific research, education, and public health; and eliminating the institutional obstructions to national economic progress.[2] However, as the Plano Trienal only lasted one year, being replaced by another three-year plan of much wider scope and detail, no further space will be used to describe a plan that expired in childhood if not in infancy.

The Furtado Plan

The Three-Year Plan for Economic and Social Development (1963-1965) was presented to Congress in December, 1962. This plan was the first product of the National Planning Commission (COPLAN) under the guidance of economist Celso Furtado, Minister without Portfolio of President Goulart's government; hence, it is commonly called the Furtado Plan. Celso Furtado was for many

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[1] Ibid., p. 9.

[2] Presidencia da República, Ação Governamental de João Goulart (Rio de Janeiro: IBGE, 1964), pp. 111-15.

years the chief of the Development Division of the United Nations Economic Commission for Latin America (ECLA), the Director of BNDE during 1958-1959, and the first director of SUDENE from 1960 to 1962.[1]

Although this plan is listed only as a three-year plan with investments of 3.5 trillion cruzeiros at 1962 prices over the three-year period, basic reforms in the fields of administration, banking, agriculture, and public finance are a composite part of the program.[2] The economic effects of the execution of the plan should, therefore, be of much longer duration than the plan itself. Concerning the integration of the plan with monetary and fiscal actions of government, the following is quoted from the plan: "In order to attain these domestic objectives, a better coordination of the monetary authorities must be set up at the highest level in preparation for the banking and administrative reforms to be submitted to National Congress."[3]

The listed objectives of the Furtado Plan are to:[4]

1. Assure a 7 per cent real rate of growth per year or a 3.9 per cent per capita growth rate.

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[1] I. L. Horowitz, Revolution in Brazil (New York: E. P. Dutton & Co., 1964), p. 82.

[2] Presidencia da República, Three-Year Plan for Economic and Social Development 1963-1965 (Rio de Janeiro: IBRE, December, 1962), p. 8.

[3] Ibid., p. 10.

[4] Ibid., pp. 7-8.

2. Progressively reduce inflationary pressures so that the inflation for the year 1963 will be no more than one-half that of 1962, and by 1965 it will be lowered to 10 per cent annually.
3. Have the workers receive a larger share of income distribution, so that their salaries will increase at least as much as their increase in productivity.
4. Increase government participation in the fields of education, health, and research.
5. Develop certain backward areas so as to reduce regional disparities in the level of living.
6. Eliminate institutional obstacles to economic development, i.e., need for agrarian and banking reforms.
7. Change the foreign debt from short and medium term to long term debt.
8. Provide government with increasing unity of command so that there is a continuing necessary amount of investment for the planned rate of growth, and investments are planned to minimize the waste of resources.

Certain specific goals for the three-year period were:[1]

1. To increase agricultural production by 18 per cent.
2. To increase industrial production by 37 per cent.

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[1]Ibid., pp. 7-8.

3. For domestic industry to supply at least 70 per cent of capital goods by 1965.
4. For steel ingot production to rise from 2.7 million tons in 1962 to 4.3 million tons in 1965.
5. To increase tractor production from 8,000 to 18,000 units.
6. For automobile and truck production to rise from 190,000 units to 270,000 in 1965.
7. For electric generating capacity to grow from 4,751,000 kilowatts in 1961 to 7,430,000 in 1965.

The following guidelines were issued with respect to monetary, fiscal and exchange policy:[1]

1. Credit increases should be kept even with increases in real product.
2. Government expenditures for 1963 should be limited to one trillion cruzeiros so as to limit the cash deficit to 300 billion cruzeiros, i.e., only one-half the inflationary pressure of 1962.
3. Exchange policy should cause an increase in exports necessary to cover current imports and external debt financing.

Finally, there are certain basic reforms required for continued economic development.[2]

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[1] Ibid., p. 9.

[2] Ibid., pp. 143-146.

The administrative reforms needed are:

1. To separate planning from executive activities within each Ministry and for government as a whole, with the new Central Planning Agency having ministerial status and the authority to guide the execution of the global plan.
2. To coordinate plans of all regional agencies with the Central Planning Agency.
3. To coordinate and integrate all agencies with respect to basic needs.
4. To reduce the number of agencies reporting directly to the President of Brazil.
5. To split the Ministry of Planning and Public Works into Ministries of Transportation and Communications and to put the remainder of the old ministry into the new Ministry of Planning.
6. To decentralize public health activities by transferring executive functions to states and municipalities.
7. To accomplish complete reform of Ministry of Education.
8. To reorganize agencies of the Ministry of Finance so as to increase tax efficiency and reduce tax dodging.
9. To reorganize the accounting system--decentralize it to make it more realistic and effective.

The banking reforms needed are:

1. To promote further specialization of the private financial institutes.
2. To define distinctly the administrative responsibilities of the separate financial institutes.
3. To write specific lines of monetary authorities.
4. To create a central bank by one of the following operations: (a) Expand SUMOC to include all the functions of a central bank; (b) Expand the Banco do Brasil to include all of the functions of a central bank, and keep its commercial, rural, and industrial banking departments intact; and (c) Expand the Banco do Brasil to include all the functions of a central bank, but eliminate all the current functions performed by it that are incompatible with the operation of a central bank.

The fiscal reforms needed are:

1. To use the policies as a tool of economic development, controlling the volume of investments in line with the interests of the national economy.
2. To perform a tax reform.

The land (agrarian) reforms needed are:

1. All lands necessary for food crops that are unused or used in an inferior manner should be subject to expropriation for long-term payments.

2. No farm laborer who gets minimum wage or less than minimum wage for him and his family in his geographical area shall pay land rent in any form.
3. No rural farm worker or tenant, after two years of work on land, should be deprived of land without fair compensation.
4. No laborer who comes to work on virgin soil and cultivates it should, after one agricultural cycle, pay rent on the land.

This completes the part covering economic goals. The next and final part will deal with the actual developments resulting from these plans, and an analysis of conditions that caused or prevented their consummation.

Chapter 6

PLANNING ORGANIZATIONS AND GOALS

Planning Institutions

Before 1956 there was no permanent institution dealing primarily with global economic planning in Brazil. The Ministry of Planning and Public Works in the main dealt with transportation and communications; the planning sector of the ministry was almost entirely restricted to the two other sectors.

In 1949 the Economic Council was established to serve "as an advisory body to the President and the Congress on economic and financial matters."[1] This Council is required by law to submit annually to the President and Congress a report of the economic condition of the country.

The institutions that were responsible for the formation of emergency and development plans before 1956 were all ad hoc organizations that were dissolved upon submission of the plan or after the culmination of the plan itself. Although the National Economic Development Bank, which was established in 1952, does have a planning board, its primary function has been to carry out the plans

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[1]Moore, p. 23.

developed by institutions that have formed the emergency or longer range development plans already mentioned.

The Development Council was created in the President's office in February, 1956, to coordinate all sectoral and regional plans and to formulate plans for improvement of the efficiency of government and promotion of the development of private enterprise.[1] In March, 1958, however, its functions were limited to the duties of coordination of economic policies and the execution of the Program of Targets. Development planning per se was to be performed only upon specific authorization by higher authority.[2] Hence the Development Council had terminated its existence as a planning organization after only about one year of operation. Actually, the real planning of the Program of Targets was not performed by a Brazilian organization. It was performed by the Economic Commission for Latin America (ECLA), a United Nations organization located in Santiago de Chile.[3] The Targets Plan was used by Juscelino Kubitschek as a major part of his political campaign for President of Brazil in 1955. The fact that the Brazilian economist, Celso Furtado, was chief of the Development Division of ECLA when the plan was formulated is probably more than coincidental.

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[1]Inter-American Development Bank, p. 92.

[2]Meare, p. 23.

[3]Ministry of Foreign Affairs, p. 4.

A combination planning and operational institution was created by the Brazilian government in May, 1962, to assist private businessmen and government authorities in relations with the international and United States lending agencies working with the Alliance for Progress. This agency is the Coordinating Commission for the Alliance for Progress (COCAP) whose Secretary General is also the Secretary General of the National Planning Commission.[1]

Although the National Planning Commission (COCPLAN) was created by law in August, 1961, it was not until early 1962 that it began to function as a planning agency.[2] Its primary function was the preparation of five-year development plans; however, its first project was a three-year plan, the Furtado Plan, because of the limited time left before completion of the projected tenure of the then current President of Brazil.

In September, 1962, the Ministry of Planning (Ministro Extraordinario para a Planejamento e Coordenação Economica) was established with jurisdiction over both the Development and the National Planning Commission.[3] In essence, the Ministry of Planning was given the authority over the planning concerning All ministries as was outlined in the

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[1]Ministry of Foreign Affairs, p. 2.

[2]Inter-American Development Bank, p. 92.

[3]Ibid.

guidelines for administrative reform, as presented in the Furtado Plan. Actually, it may be said that not until early 1962 was a permanent long-range global planning institution in operation, and not until the formation of the Planning Ministry in September, 1962, could effective coordination of all national plans be assured.

National Goals

An oversimplification of the national goals of Brazil would be balanced and rapid economic growth and development. Even if the above statement were correct, it would be too general to have any real specific meaning. Or if that were the one and only ultimate goal, then what steps would be required to achieve it; that is, what longer or shorter-term goals are prerequisites for the attention of the ultimate?

> The economic development policy of Brazil has four main objectives: (1) the promotion of accelerated industrial development as the most effective process to raise the per capita income of the population and the productivity of the labor force; (2) the diversification of the economic structure in order to reduce its vulnerability to fluctuations in international trade; (3) a high rate of capital formation in social overhead and in directly productive investments compatible with a rising rate of population growth; and (4) on the social level, to promote a more equitable distribution of income.[1]

The above quotation may be interpreted to mean that there is need for improvements in the fields of transporta-

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[1]Ministry of Foreign Affairs, p. 2.

tion and communications; for a concentration on the development of basic industries, electric power capacity, and the production of coal, petroleum and petroleum products; and for a greater diversification in the production of agricultural products so as to lessen the dependence on coffee and cause for export earnings; and to lessen the need for importation of certain foods, petroleum, and manufactured goods. The quotation could also mean that agriculture, manufacturing, transportation, and the power industries should become more capital-intensive; and finally that for more equitable distribution of income there should be more progressive taxation, more educational facilities at low costs for all who have need for them, and that there should be special programs with tax and/or other incentives to raise the level of income of the underdeveloped areas of Brazil closer to the national mean or median. In other words, these four objectives seem rather broad or even vague unless you happen to be cognizant of a large amount of pertinent, and possibly also esoteric, information concerning the country itself. However, upon checking over the projects and guidelines of the development programs in the last chapter, you will find just about all of these problems have been tackled, usually head-on; this situation is especially true with respect to the progress of the last plan listed--the Furtado Plan.

Before moving to another area, let us return to the goal of accelerated balanced economic growth. Whether or not one is a believer of Schumpeter's theory of growth, balanced growth not only would be difficult, especially if at an accelerated pace, but it would also indicate that there is no sectoral or geographical imbalance. It so happens that there are both types of imbalances in Brazil--between the farm laborer and the worker in industry, chiefly manufacturing, and between the South-Central area as compared with the Northeast. As presented by Roberto Campos, a leading Brazilian economist, "Strictly speaking, only an economy which has an infinitely elastic supply schedule for every commodity and which is perfectly adjustable to changes in the demand pattern can aspire to balanced growth."[1] To eliminate Brazil from the candidate category for balanced growth, all we need to do is to mention that coffee represents over 50 per cent of her export earnings; and it would be difficult to find a product more inelastic in supply than a tree crop such as coffee. Of course, in Brazil the combinations of frosts and droughts do present greater crop variations than in most other coffee-producing countries, but the variations are not often desired, nor are they always in

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[1]Roberto de Oliveira Campos, "Inflation and Balanced Growth," Economic Development for Latin America, ed. by Howard S. Ellis and Henry C. Wallich (London: Macmillan & Co. Ltd., 1963), p. 89.

the desired direction, and consequently Brazilian coffee does not approach elasticity of supply. In Brazil what is needed is an uneven development in order to bring about a better balance between the agricultural and manufacturing sectors, and between the developed Central-South and the underdeveloped Northeast, as well as most of the Amazon Valley. The same arguments may be made for the more rapid development for certain transportation media in certain locations, especially for coastal and river shipping.

Celso Furtado has presented a much simpler and more easily understandable goal, that of the "conquest of decision centers" which previously had been located abroad in the advanced industrial countries.[1] However, it still means to me that decision centers are not completely under local control when 50 per cent of export earnings evolve from the sale of one agricultural commodity and when the import coefficient represents 8 to 9 per cent of GNP.[2]

Despite the fact that statistics seem to have shown Brazil to be in Rostow's take-off column at least by 1960,

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[1]Albert O. Hirshman, "Ideologies of Economic Development in Latin America," Latin American Issues: Essays and Comments, ed. by Albert O. Hirshman (New York: The Twentieth Century Fund, 1961), pp. 34-35.

[2]Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Econômico, pp. III 2-3.

this movement has been delayed by Brazil's structural imbalance,[1] externally due to foreign debt as well as to the two internal imbalances already discussed. Hence Brazil's goal simply stated should be accelerated economic growth with removal of the structural bottlenecks by a higher rate of development in the weaker economic sectors and geographical areas, along with a more equitable distribution of income. This goal is complete enough to be understood without being too long to be forgotten. Of course, we realize that there are always prerequisites for reaching this goal. Supposedly, these prerequisites are listed in the various projects of the development plans that were discussed in the previous chapter. The next and final part of this paper will be the analysis of the success or failure of these programs, along with any other monetary and fiscal actions taken during the 1953-1963 period.

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[1]Abrahman, p. 29.

Part III

ANALYSIS

Chapter 7

INFLATION

Economic History Related to Inflation in Brazil

From 1821 to 1889, the period of the Empire of Brazil, Brazil was heavily burdened by foreign debts, chiefly in the form of bonds to N. M. Rothschilds and Sons of London. The debt of 1,500,000 pounds sterling to Great Britain and 500,000 pounds sterling to Portugal was the result of a 2,000,000 pounds charge to Brazil for its freedom made by Portugal upon the departure of the King of Portugal from Rio de Janeiro to Lisbon in 1821.[1] Before leaving, the king and his court emptied the Brazilian treasury of all valuables, including jewels, gold, and foreign currency.[2]

In order to amortize the British loan and pay the 500,000 pounds debt to Portugal, Brazil was required to obtain seven funding loans which added up to more than 6,000,000 pounds plus interest. As about 40 per cent of national income was needed to pay these foreign debts, the printing press was frequently used to make money,

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[1]Normano, pp. 153-54.

[2]Ibid., p. 169.

although there was no gold or foreign exchange to back the new issues.

In 1889 the change from the status of Empire to Republic brought no immediate improvement financially. In fact, initially it was quite detrimental, because after an external stability of Brazilian currency with the British pound for over thirty-five years, during the first nine years of the Republic the Brazilian mil reis dropped 80 per cent--from an average of 26.5 pence per mil reis in 1889 to a low of 5.5 pence per mil reis in 1898.[1] The primary causes of this external depreciation and internal inflation of the mil reis were the issue of paper money almost without limit and the beginning of a history of federal budget deficits which have become the rule instead of the exception, especially after 1906.[2]

Another factor of appreciable significance during the first decade of the Republic was the gold or foreign currency profit guarantees made by the government of the Empire or the provinces (states) to the builders and operators of a number of railroads built in the last two decades of the Empire. The combination of Brazil's

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[1] Ibid., pp. 199-200.

[2] Ibid., pp. 178-81. From 1907 to 1964 there have been only two years in which the combined federal, state, and municipal budgets have not resulted in a deficit; these were in 1944 and 1951, whose small surpluses were in effect overwhelmed by the deficits that followed.

currency depreciation in the foreign market, plus the lag or refusal of the federal government's approval of freight and passenger rate increases in allowance for the inflationary rise in operating costs, caused the railroads to suffer heavy losses. As the government, chiefly federal, was liable for the guarantees payable in gold or foreign currency, the railroads with deficits, especially those with the guarantees, were purchased by the federal or state governments. Not only was money needed for the purchases, but it was also needed for the continued deficit operation of the railroads. The results were inflationary pressures that continued well beyond the purchase dates through the required increase in deficit financing by the federal government.

During the first two decades of the Republic, Brazil was aided by concurrent coffee and rubber booms that kept her liquid in the foreign exchange field except for one year, 1897, when due to the failure of the coffee crop a funding loan of 8,613,717 pounds was needed and obtained from the house of Rothschilds in London. The increased production and exportation of these two commodities helped to temper the detrimental effects of the federal budgetary deficits and the overissue of currency in the first decade of the Republic. The Brazilian economy attained stability in 1898. This stabilization was immensely assisted by balanced budgets and the contracted circulation of paper

currency--both most unusual for Brazil--during the 1898-1906 period. Within this span the currency of Brazil had an experience of external appreciation never to be repeated: in relations with the British pound the mil reis appreciated 300 per cent. Since that time external depreciation has been constant, and except for the 40 per cent drop from 1920 to 1921, depreciation had been very gradual at about 2 per cent per annum until 1940.[1] The sharp drop in external value of the mil reis in the 1920-1921 period resulted from eight consecutive federal budget deficits plus a large increase (over triple) in paper issue over the same eight year period.[2] This aberration was partially corrected by a banking reform in 1924, after which the currency remained more or less on par with the pound until the 1940's.

Following are additional factors that helped to stabilize the economy during these thirty-four years (1907-1939) over which only the "normal" 2½ per cent per annum inflation existed, despite the budget deficits and great increase in paper money in circulation:

1. The rubber boom that lasted until 1918.
2. The improvement in price and price stability of coffee as a result of the valorization

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[1]Normano, pp. 200-01.

[2]Ibid., pp. 136, 186.

system that was initiated at the beginning of the period in 1906.[1]

3. The large number of foreign loans made for development of transportation and public utilities and for debt funding and consolidation.

4. The federal, state, and municipal dollar bonds issued in the 1920's--over 400,000 U. S. dollars worth.[2]

5. The world-wide depression of the 1930's.

During World War II, from 1940 until 1947, the rate of inflation rose to 15 per cent per annum. After a four-year period of relative stability of prices, a 20 per cent annual rate of inflation was initiated in 1952 and lasted until 1959.[3] The three-year span of 1959-1961 saw an average annual rate of about 37 per cent, followed by 52.6 per cent in 1962 and 73.5 per cent in 1963.[4]

From 1953 to 1963 the Brazilian cruzeiro had depreciated in purchasing power to one-sixteenth of

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[1]H. W. Spiegel, The Brazilian Economy - Chronic Inflation and Sporadic Industrialization (Philadelphia: The Blakiston Company, 1949), pp. 123, 172.

[2]Normano, pp. 225-30.

[3]Cabinete do Ministro Extraordinario para o Planejamento e Coordenação Economico, pp. IV 1-2.

[4]Ibid., pp. IV 3-7.

its original value; and if the cost of food were the only measuring device, then the inflation would have been slightly greater over most of the range (see Table 31).[1]

Relation of Inflation to Growth

Brazil may be categorized as an underdeveloped country that is now passing through a period of industrial development. Brazil's economic growth has been moving at an accelerated pace from 1940 to 1962; however, during this same period of time, except for the 1948-1951 span of relative price stability, the annual inflation rate had risen from the 15 per cent annual average experienced during World War II to the 20 per cent rate that lasted until 1959. The year 1959 was the beginning of the 37 per cent annual rate of inflation that lasted for three years, during which time Brazil achieved her highest sustained rate of economic growth. From 1947 to 1961, the average real increase in production per annum was 5.8 per cent. There was, however, a lack of uniformity in this growth rate. From 1947 to 1952 the rate was slightly greater than 5 per cent per annum; from 1953 to 1956 it was slightly less than 5 per cent; but for the five-year span after

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[1]The cost of living figures of the city of Sao Paulo are used because they are much more dependable than those of the federal government, especially with respect to the nominal years of this work.

Table 31

Indexes of Cost of Living in the City of Sao Paulo and of Wholesale Prices - 1953-1963 (Base monthly average of 1953 = 100)

Year	Total Cost of Living Index	Food Cost of Living Index	Wholesale Price Index*	Annual Percentage Change of Total Cost of Living
1953	100	100	100	21.6
1954	118	119	126	18.3
1955	141	141	149	19.5
1956	173	175	182	22.2
1957	206	195	208	19.2
1958	237	219	238	15.2
1959	326	316	340	37.2
1960	439	456	447	34.9
1961	607	614	627	38.1
1962	926	970	941	52.6
1963	1607	1617	1660	73.5

*Excluding coffee.

Sources: Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Bl., Year XIII, Nos. 1, 8, January, August, pp. 60, 130; and Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Econômica, Programa de Ação Econômica do Governo: 1964-1966, Vol. I, pp. IV 3-7.

1956 the rate rose to almost 7 per cent, culminating with 7.3 per cent in 1961.[1]

In view of the above statistics, the question might be asked, "Has the period of industrial growth brought on this inflation, or is the inflation a necessary catalyst for this type of economic growth?" A succinct answer to this query will require a review of some of the theory expounded by both our predecessors and contemporaries.

The following statement was made by the Joint Commission in the report published in 1953:

> Given the weakness of the market for public and private securities, which could not be corrected in the short run, and the political difficulties of raising tax levels and redirecting tax resources in the direction of developmental financing, inflation appeared to be the politically easiest, though economically and socially costly, means of shifting resources from consumption to investments.

John Maynard Keynes, in his A Treatise on Money, extols the need for "profit inflation" as a stimulus to economic progress and then correlates the rise and fall of Spain as a world power with its profit inflation during the rise and profit deflation through the fall. In fact, Keynes also showed that Shakespeare presented himself and his plays at the proper time, during a profit

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[1]Ibid., pp. III 1, III 11.

[2]Institute of Inter-American Affairs, The Development of Brazil, p. 238.

inflation in England.[1] However, as shown by Gottfried Haberler of Harvard in his monograph on Inflation - Its Causes and Cures of June, 1960, "Keynes' historical examples are taken mostly from the pre-capitalist or early-capitalist era" when inflation may be an explosive force that may tend to shake a country loose from its feudal bonds and hence promote economic progress. But Keynes in this same article made it clear that "the wealth of nations is enriched not during Income Inflations but during Profit Inflations...when prices are running away from costs."[2] And later in his Treatise Keynes writes, "I am not yet converted, taking everything into account, from a preference for a policy to-day, which, whilst avoiding deflation at all costs, aims at the stability of purchasing power as its ideal objective."[3] It might be well to mention that the setting of Keynes' Treatise was the world during the great depression when all bad things seemed to be tied to the opposite of inflation.

Schumpeter, like Keynes, seemed to believe that economic growth was tied to profit inflation--one that

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[1]Gottfried Haberler, Inflation - Its Causes and Cures (Washington, D. C.: American Enterprise Assn., 1960), pp. 55-56.

[2]Ibid., p. 56.

[3]Ibid., p. 57.

is not boo closely followed by o wage rise. But he qualifies his theory by stating that "this productive inflation can be no more than a passing phase of limited duration and must be unforeseen and unanticipated,"[1] and that the long-run trend of the price level should be downward. On the other hand, Professor S. H. Slichter called upon the Federal Reserve "to keep money tight to prevent prices from rising from something like 5 per cent a year, but be make sure that prices are allowed to go by 2 to 3 per cent."[2] The point of issue is that by having a mild inflation, we would be able to meet labor's demands without raising real wages, or at least not beyond the production increase. Professor Haberler's feeling is that requesting the monetary authority to comply with such stringent requirements is tantamount to asking for a balancing act which defies the laws of physics.[3]

Paul Van Philips, in his book on public finance, presents similar theories, with examples of their operation in Latin America. He shows that because of the lack of volume of voluntary savings necessary for the investment required for rapid growth, the governments have

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[1] Ibid., p. 58.

[2] Ibid., p. 52.

[3] Ibid., p. 53. It may be added that from 1943 to 1947 Professor Haberler acted as economic specialist with the Board of Governors of the Federal Reserve System.

supplemented this shortage by forced savings through the continued issue of money by the monetary authority. Brazil is listed as one of the "typical examples."[1] Hence, in addition to the followers of the school that advocates "profit inflation" to attract the entrepreneur, there are in the underdeveloped countries economists who promote this deficit financing in order to obtain the capital needed for public and private investment necessary for economic growth. This method has been used because of the apparent difficulty in taxation of the "haves" who usually control the government. The result is taxation by inflation of all the people, with the brunt borne by the "have-nots." Philips describes it as the redistribution of income in favor of the supplier.[2]

Roberto de Oliveira Campos, former manager of BNDE, Ambassador to the United States, and Minister of Planning, presents the Latin American inflation problem as a controversy between the structuralists and the followers of the monetary school.[3] He expounds the principle of the

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[1]Paul A. M. Van Philips, Public Finance and Less Developed Economy with Special Reference to Latin America (The Hague: Martinus Nijhoff, 1957), pp. 155-56.

[2]Ibid.

[3]Roberto de Oliveira Campos, "Two Views on Inflation in Latin America," Latin American Issues: Essays and Comments, ed. by Albert O. Hirschman (New York: The Twentieth Century Fund, 1961), pp. 69-79.

monetary school, viz., despite the fact that the underdeveloped countries have a bias toward inflation because of excess demand caused by the demonstration effect. He shows that the structural bottlenecks which tend to restrict production and cause inflation are not necessarily inherent, as portrayed by the structural school, but can be removed by the proper application of monetary and fiscal policies.

Following are four examples of the type of bottlenecks that Brazil has, which were initially caused by inflation, but at a later stage became inflation-feeding:[1]

1. The first and probably most important type is found in the transportation and electrical-power bottlenecks. These bottlenecks are caused primarily by a frozen rate system during times of inflation, bringing about a stoppage of investment, finally disinvestment and subsequent need for government subsidies or government acquisition of ownership, followed by continued financial losses of the power or transportation entities. The result is more inflationary pressures because of added government budget deficits that mainly have to be financed by the printing press because of the limitations of the money market.

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[1] Ibid., pp. 74-76.

2. The domestic food bottlenecks are caused by price controls on basic foodstuffs for internal consumption. This action cuts down on profitability of the food sector. As a result, net investment in the food sector is reduced, but because of the low prices the demand for the food remains high, causing a scarcity of supply with relation to demand. The black market prices heed then be rise almost without limits.

3. Export bottleneck or import capacity bottleneck is easily generated by a prolonged inflation wherein multiple exchange rates are used to subsidize certain imports, and the subsidy is supplied by the use of an overvalued exchange rate on principal exports. Exports are then reduced with resultant inflationary tendencies through balance of payments pressures. Overinvestment in certain fields results because of the unreal low costs of imported equipment and raw materials obtained by the import subsidy. In the long run the cost of the protected products will be much higher than if purchased on the world market--the Brazilian automobile is an example of this.

4. The savings bottleneck or the rigidity of the savings function is caused by the freezing of interest rates despite rising inflation. The result is not less costs for spenders, but less savings because of diversion to real estate or foreign exchange investments; the necessary investment must then be made by government.

The result again is inflation because of the necessity for using the printing press to pay the costs of public investment.

Inflation is also the source of at least one other type of bottleneck or growth distortion--that affecting heavy basic industry. As presented by Nicholas Kaldor, "to accelerate the rate of growth of the economy, the prime technological requirement is to devote to the capital goods industries (iron and steel, cement, engineering, fuel, power) a higher proportion of their current output than would be required for a balanced expansion of all sectors."[1] During sustained inflation, however, the prices of products of the basic industries tend to be less flexible than the prices of light industry products. With the resultant price stability of basic industry goods while the prices of other products are rising, a similar situation occurs as was shown in bottleneck numbered 1. above concerning a shrinkage or slow down of relative growth of basic industry due to the greater profitability of the other less essential industries.[2] The resultant bottleneck in the basic industries is an effective deterrent to the economic growth of the nation.

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[1]Instituto Brasileiro de Economia, Revista Brasileira de Economia, Ano II, No. 1, March, 1957 (Rio de Janeiro: Fundação Getúlio Vargas, 1957), pp. 49-50.

[2]Roberto de Oliveira Campos, "Inflation and Balanced Growth," p. 95.

Another factor tending to slow down any inventory-intensive industry such as steel, cement, railroads, and shipping is the inadequacy of the inventory allowances during an inflationary period, thereby having a relatively greater detrimental effect on these industries than on those with relatively less inventory per money income or net profit. The result is a shift of investment to the other industries and the diminution of expansion in certain basic industries. To counteract this problem, the government has often entered or taken over the industries affected.[1] An example of the former is the steel and iron industry, which has been invaded by government in Brazil in several forms: as a federal enterprise, a state enterprise, and as mixed companies combining federal and/or state government with private industry.

The foregoing presents conclusive evidence that in the long run inflation is a detriment to economic growth. Once supply inelasticities have been created through a long process of inflation:[2]

1. They may begin to exert a derived causal role for inflation.

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[1] Ibid., pp. 95-96.

[2] Roberto de Oliveira Campos, "Two Views on Inflation in Latin America," p. 76.

2. They make the fight against inflation more difficult and painful than it need be.
3. Stabilization programs may have to adjust themselves to the fact that in the initial stages the repressed inflation may have to be converted to an open one by releasing the old controls on specific sectors.
4. The final combat against inflation will require the operation of monetary and fiscal programs in a broad sense, including projects "for more productive orientation of public and private investment, as well as a foreign aid component."[1]

In the previous decade, experiments made in "Argentina, Chile and Mexico have shown that it is difficult and almost impossible to pursue anti-inflationary policy without causing an over-all contraction of economic activity."[2] In other words, a balanced monetary policy is a prerequisite to anti-inflationary action by a government in a growing economy. However, during the last decades of the nineteenth century when prices were generally falling, the Western countries, including the United States, saw some of their most rapid continuous growth.

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[1]Ibid.

[2]Philips, p. 160. The same may be said for Brazil upon checking growth figures for the period after 1961.

In summation, it may be said:[1]

1. A continuous expansive monetary policy for the stimulation of private investment activity does not as such yield important results.
2. The costs of a continuous expansive monetary policy, whether to finance private investments or to finance government expenditure are substantially larger than the costs of a stable financial policy.
3. Under monetary stability the composition of private investments may be assumed to be more harmonious than under a policy of continuous inflation and dirigisme.
4. Thus, the net expansive impact on growth of a policy of financial stability is probably greater than that of a policy of financial instability.
5. Financial stability is therefore not only a desirable, but also an essential secondary condition for the most rationally possible realisation of social development.

Causes and Effects of Inflation in Brazil

As reported by the new Ministry of Planning, the three traditional causes of Brazilian inflation are: (1) public deficits, (2) credit expansion, and (3) greater increases in wages than in productivity, which together bring about "the expansion of means of payment, which push the monetary vehicle that causes inflation."[2] Brazil's history of both federal and consolidated budget deficits will confirm the first listed cause, as will the history of credit expansion of the commercial banks, especially that of the General Credit Department of the

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[1]Ibid., p. 166.

[2]Presidencia da República, "Programa de Ação Econômica do Governo: 1964-1966," p. IV 8.

Banco do Brasil during credit restrictions on the other commercial banks; however, I am not certain that the "greater increases in wages than in productivity" is the real issue as much as the tendency of businesses to raise the price of finished products despite the fact that wages represented no more than 15 per cent of manufacturing costs.[1] The result is an inflationary push through the excess profits in the hands of the businessman more than any excess wages in the hands of the laborer.

Before examining in more detail the situations or conditions that were instrumental in developing the above two or three basic causes of inflation, let us consider the summary analysis of Brazilian inflation made by Celso Furtado. Furtado's premise is that "inflation is fundamentally a struggle among groups for the redistribution of real income, and the rise in the price level is merely the external expression of that struggle."[2]

An example of the redistribution struggle is presented by the rapid increase in terms of trade from 1948 to 1954, when the index rose from 100 to 235 during the

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[1]Ivan Pedro de Martins, Introdução a Economia Brasileira (Rio de Janeiro: Livraria José Olympio Editora, 1961), p. 119.

[2]Furtado, p. 253.

six-year period,[1] chiefly because of the rise in export prices for coffee, which represented about 60 per cent of Brazil's exports and because of the world shortage that developed shortly after World War II.[2] Ordinarily the income increase in United States dollars would be absorbed by additional imports and would have little inflationary impact; however, import controls which were in effect precluded this happy ending. The immediate result of the increased money in the hands of coffee growers or sellers of export coffee was additional internal monetary demand. The additional monetary demand tended to lift prices internally, as they were not under general government control as were imports.

Because of the added deposits of this excess in commercial banks, they were in position to make available more credit to local businessmen who were interested in expanding production to get a share of this additional real income. Of course, the banks could avoid a rise in the price level by restricting credit, thereby allowing the coffee export sector to receive the benefit of the redistribution of income. But as the industrial and commercial sectors participate much more actively in the banking system than the coffee producers, the banks

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[1]Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Mi., Year VII, No. 5, May, 1950, pp. 24-25.

[2]Cf. supra, pp. 135-36.

could not be expected to discriminate against them in favor of the agricultural export sector; therefore, the banks usually took no restrictive action on credit.[1]

The price rise in the export sector for the coffee tended to move coffee from the domestic market to the export market, and then the coffee shortage in the domestic market caused its domestic price to rise. The coffee producers are expected to respond to this excess of demand over supply by increasing production, thereby alleviating or eliminating the disequilibrium between supply and demand. With respect to coffee, as from three to five years are required before the production on new plants occurs, the supply shortage will tend to last for a more extended period of time than usual for the normal annual crop; and when investment does reach maturity, often a system of overproduction is created.[2]

Although this theory of inflation has been exemplified only by demonstration of its effect through positive terms of trade in combination with import restrictions, still the struggle for the redistribution of the additional acquired income has been clearly shown in the push for credit by the other sectors, thereby releasing the inflationary forces. For a better understanding of inflation

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[1]Furtado, pp. 255-56.

[2]Ibid., pp. 256-57.

in Brazil, seven of the causes will be described individually in this chapter.

Inelastic Supply of Export Products and a High Import Coefficient

The basic cause of this steady price increase may be found in the combination of an inelastic supply of native products, almost constant full employment, and a high dependence on foreign trade. This is true not only in Brazil but in the rest of Latin America as well. The argument of Keynes that an initial impulse through an increase in investment or exports will have a larger effect on the national income and employment through the action of the multiplier than the initial impulse might lead one to expect does not hold for Brazil. Full employment is not the cause of this nonconformance, because although few workers are unemployed, a large number are ill-employed in occupations of low productivity. This latter condition may be considered as a type of unemployment. However, in an economy where the principal end-products are inelastic in supply--those of extractive and agricultural industries--and the immobility of productive factors is made more definite by continued "full employment," the benefits of any expansionist program are limited and tend to bring on inflation immediately if strong import controls are being used.

Assuming there are no controls, imports will increase along with a reduction in exports, both of which are

results of the expansion movement. But this combined motion will bring about an abrupt halt to the expansion because of the resultant pressure of the international balance of payments. Stated more explicitly, the benefits to be derived from higher prices for exports, from the sale of larger exports, or from an expansionist program (e.g., public investment) are limited. With or without import controls, more domestic goods will be bought within the country because of the additional currency available. If the use of this increase in currency were limited to the purchase of domestic goods, an immediate rise in domestic prices would result because, even if production were increased, it would be at the expense of higher costs per unit caused by the inelastic supply of the native raw materials. The expansion will bring about a need for additional import goods in order to continue its existence, because a substantial percentage[1] of money spent in Brazil is for imports, chiefly raw materials, machinery, and fuel for industry. Also, this same expansion will cause an unfavorable balance of payments pressure from both sides: (1) through a decrease in exports caused by the increase in demand for domestic goods, and (2) by the increase of imports brought

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[1]From 1953 to 1963 the value of imports was about 8.7 per cent of the Gross National Product of Brazil.

on because of the limited variety and inelastic supply of domestic goods. This pressure will abruptly halt the expansion that was the creator of the force behind the pressure itself. But inflation continues in spite of the fact that economic expansion is halted.

An example current with this paper is during the years 1962 and 1963, when expansion per capita was halted but inflation ran rampant.

The forces of domestic inflation are still effective through other channels--the deflation of the cruzeiro in international finance, which will naturally cause a rise in Brazilian prices of imports and, therefore, also at home for products using imports as raw materials or factors of production. As stated by the Brazilian economist and ex-Finance Minister and first President of the Central Bank, Octavio Gouvêa de Bulhoes:

> In countries where industries of elastic supply predominate, stagnation takes the form of unemployment and deflation. In other countries where inelastic supply dominates and is strongly linked to the export trade, deflation is counterbalanced by a decline of the exchange value of the currency; this currency deflation prepares the economy for powerful inflationary movements immediately at the start of recovery.[1]

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[1]Octavio Gouvêa de Bulhoes, "Inflation and Industrialization: A Brazilian Viewpoint," Four Papers Presented at the Institute for Brazilian Studies (Nashville: Vanderbilt University Press, 1961), pp. 44-45.

Export Balance of Trade

Another interpretation would place emphasis on the export surplus; but because of the large amount of invisible imports[1] this potential factor would have had little or no effect after the year 1931, except for the five years of World War II (1942-1946) when large export balances were built up because of the unavailability of imports. As shown in Table 32, during the 1953-1963 period there were only three years when Brazil had a positive "balance of trade." This may be seen by comparing Imports CIF to Exports FOB. After 1956 every year had a negative balance for Brazil; therefore, only during the first four years of the nominal period of this study could the export balance of trade have been a cause of the inflationary pressures in evidence at the time. The opposite was the case for the sixty-year period before 1946, when there were only five years of deficit between Imports CIF and Exports FOB, three of which were during the depression of the 1930's.[2]

During the World War II period, external debts to the United States and Great Britain were appreciably reduced (almost halved) and the French debts were paid in full.

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[1]The "invisibles" include insurance and freight charges for imports on ships of other countries. These items are large for Brazil due to the large percentage of foreign ships carrying imports over great distances.

[2]IBGE, Anuário Estatístico do Brasil - 1955, p. 277.

Table 32

Exports, Imports, Import Coefficient, Balance of Trade, and Terms of Trade - 1953-1963
(Figures in million dollars U. S.;
base for terms of trade: 1953 = 100)

Year	Exports FOB	Imports CIF	Trade Balance*	Import Coefficient	Terms of Trade
1953	1,539	1,319	220	5.9	100
1954	1,562	1,634	- 72	10.2	134
1955	1,423	1,307	116	8.7	118
1956	1,482	1,234	248	8.1	113
1957	1,392	1,489	- 97	8.2	117
1958	1,243	1,353	-110	7.9	119
1959	1,282	1,374	- 92	9.0	109
1960	1,269	1,462	-193	8.4	101
1961	1,403	1,460	- 57	8.6	97
1962	1,214	1,475	-251	9.4	84
1963	1,406	1,487	- 81	8.2	91

*With added insurance and freight charges for imports.

Sources: IBGE, Anuário Estatístico do Brasil - 1960, 1962, 1964, pp. 160, 159, 155; and Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., Year XIII, No. 2, February, 1966, p. 155.

Inflation continued despite the fact that a large portion of Brazil's exports were not purchased through cash payments but by blocked accounts. The Banco do Brasil, acting as clearing house for export and import trade, paid the exporters in Brazilian currency and entered the blocked accounts on the credit side of the government of Brazil's ledger book of international trade. The cost of living in Brazil rose 140 per cent during this six-year period from 1940 to 1946. It is evident that the export surplus was a principal cause of this inflation, because during that time there was no currency depreciation, little inflow of capital, and no balance of payments problems, although there were some large budgetary deficits.

Ordinarily one would conclude that the lack of currency depreciation would entail the absence of internal inflation. However, inflation evolved without concomitant depreciation of the national currency because World War II limited the availability of imports and increased the demand for exports.

Budgetary Deficits, Currency Depreciation and the Inflow of Capital

The economic history of Brazil is characterized by rising domestic prices, budgetary deficits, export surpluses, currency depreciation, and the inflow of capital. All of these factors have operated persistently, most of them to this day, although the large inflow of capital ended

during the great depression of the 1930's, and the export surplus is no longer a norm.

The inflow of capital is considered inflationary by both classical and modern schools. Regularly recurring budget deficits, coincident with a rather inelastic supply of domestic goods, are additional factors that may start or continue an inflationary movement.[1] From 1910 through 1963, the federal government of Brazil has shown a deficit in all but six years--1927, 1928,[2] 1947, 1948,[3] 1951, and 1952. However, if the aggregate of federal, state, and municipal governments is taken for the same period, every year shows a deficit except two--1944 and 1951.

A closer inspection of inflationary factors evolving from government deficits may be found by perusal of Table 33 in which, for the 1947 to 1963 period, the federal and consolidated government debits are presented along with the figures of the subsequent rising money supply, loans to the private sector, and the rising cost of living index. Upon checking the period of low government deficits from 1947 to 1952, it can be seen that the money supply was not appreciably increased during the second and third years

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[1]Spiegel, p. 48.

[2]Normano, p. 136.

[3]Banco do Brasil, Relatório de 1959, p. 116.

Table 33

Federal and Consolidated Government Budgets, Money Supply, Loans to the Private Sector and Cost of Living Index - 1947-1963
(End of year balances; figures in billions of cruzeiros)

Year	Federal Government Deficits	Consolidated Government Deficits	Money Supply[a]	Loans to Private Sector	Cost of Living Index[b]
1947	0.5[c]	1.1	47.1	41.5	55
1948	0.0[c]	1.3	50.2	45.7	59
1949	2.8	4.0	58.4	54.1	58
1950	4.3	6.9	78.3	69.4	62
1951	- 2.8[c]	- 1.1[c]	90.7	85.7	67
1952	- 2.3[c]	4.0	104.2	102.3	82
1953	2.9	6.3	124.1	120.4	100
1954	2.7	8.9	151.5	152.2	118
1955	7.6	12.5	177.9	171.4	141
1956	26.8	34.6	217.3	205.4	173
1957	32.9	37.1	290.9	254.5	206
1958	30.7	43.5	353.1	311.6	237
1959	26.4	38.8	500.6	400.9	326
1960	31.6	42.8	692.0	565.0	439
1961	102.5	117.0	1,041.8	781.4	607
1962	214.9	255.1	1,702.3	1,254.5	926
1963	324.5	444.5	2,792.2	1,945.9	1607

[a]Coins not included.

[b]City of São Paulo.

[c]Indicates a surplus.

Sources: SUMOC, Boletim, Vol. XI, Janeiro de 1965, pp. 40, 43; Instituto Brasileiro de Economia, Conjuncture Econômica, Ano XI, No. 5, Maio de 1957, pp. 41-49; Instituto Brasileiro de Economia, Conjuncture Economica, Int. Ed., Year IV, No. 1, January, 1957, pp. 31-36; Banco do Brasil, Relatório de 1954, 1955, 1956, 1959, 1964, pp. 250, XII 125, XII 115, XII 119, 299; and IBGE, Annário Estatistico do Brasil - 1955, 1960, 1962, 1964, pp. 522, 372, 337, 363.

of the period, and that inflation had been restrained to about 2 per cent per annum for these same two years. Afterwards, money supply, loans, and cost of living tended to rise more rapidly, to the extent that other inflationary factors must have been in evidence, especially in 1951--a surplus year for both federal and consolidated government budgets but with a continuation of the 8 per cent annual inflation that was initiated during the previous year.

A better picture of the 1953-1963 period can be found in Table 34 by comparing the changes between index values of paper money issued with money supply and with wholesale prices. Also included are the index values of the velocity of money and the real value of business transactions. As the increase over the eleven year period of both these data are almost equal, about 100 per cent, ceteris paribus it would appear that were there no inflation there would have been almost no need for an increase in the issue of money or an increase in the money supply over the eleven-year period. Consequently the index values of the paper money issued and of the general price level remain close together throughout the period.

The inflationary potential of budgetary deficits has increased not only in absolute values but also very strongly in relative values, which are much more meaningful (see Table 35). During the first three years of the

Table 34

Index Values of Paper Money Issued, Money Supply, Money in Circulation, Velocity of Money, General Price Level,[a] and Real Value of Commercial Transactions[b] - 1953-1963
(Base: Monthly Average of 1953 = 100)

Year	Paper Money Issued	Money Supply	Money in Circulation	Velocity of Money	General Price Level[a]	Real Value of Commercial Transactions[b]
1953	100	100	100	100	100	100
1954	123	122	122	114	127	107
1955	148	145	150	117	148	112
1956	172	174	174	132	177	124
1957	205	216	204	133	202	133
1958	255	288	251	138	229	159
1959	329	360	312	153	316	157
1960	439	507	406	159	407	176
1961	668	731	595	168	559	193
1962	1082	1127	871	182	846	223
1963	1891	1782	1344	201	1473	210

[a]Weighted average of wholesale prices (six weights), cost of living in the city of Rio de Janeiro (three weights), and cost of construction (one weight).

[b]Arithmetic mean of index of compensation of checks and sale of merchandise in the states of Guanabara and São Paulo, divided by the general price level index.

Sources: Banco Central do Brasil, Boletim, Vol. III, No. 8, Agosto de 1967 (Rio de Janeiro: Irmão Di Giorgio & Cia., Ltda., 1967), p. 137; SUMOC, Boletim, Vol. XI, No. 1, Janeiro de 1965, pp. 40-41; and Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., Year XIII, No. 1, January, 1966, p. 76.

Table 35

Receipts, Expenditures, and Deficits of the Cash Budget of the Union in Percentages of Gross National Product - 1953-1963
(Figures in billion cruzeiros)

Year	Expenditures of Cash	Cash Receipts	Deficits of Cash	GNP	Expenditures as Percent of GNP	Receipts as Percent of GNP	Deficits as Percent of GNP
1953	39.9	37.1	2.9	425.2	9.4	8.7	0.7
1954	50.5	46.5	4.0	550.6	9.2	8.4	0.7
1955	61.4	55.7	5.7	689.3	8.9	8.1	0.8
1956	93.4	70.4	23.0	880.3	10.6	8.0	2.6
1957	126.7	85.8	40.9	1,053.2	12.0	8.1	3.9
1958	146.2	117.8	28.4	1,303.6	11.2	9.0	2.2
1959	211.5	157.8	53.7	1,791.4	11.8	8.8	3.0
1960	297.5	219.8	77.7	2,396.8	12.4	9.2	3.2
1961	447.9	317.5	130.4	3,475.1	12.9	9.1	3.8
1962	778.7	511.8	266.9	5,435.6	14.3	9.4	4.9
1963	1,435.0	930.3	504.7	9,519.8	15.1	9.8	5.3

Note: Due to rounding, some of the subtractions appear to be incorrect.

*Includes expenditures for autarchies not included in the official budget.

Sources: Gabinete do Ministro Extraordinario para o Planejamento e Coordinação Econômico, Programa do Ação Econômico do Governo: 1964-1966 (mimeographed), pp. IV 9-10; IBGE, Anuário Estatistico do Brasil - 1962, 1966, Ano XXIII, XVII, pp. 199, 305; and Banco do Brasil, Relatório de 1964, pp. 187-189.

period--from 1953 to 1955--average federal expenditures were about 9.2 per cent and deficits were less than 1 per cent of Gross National Product. But after seven years of steady increases, the relative value of government expenditures (except for 1958) rose to 15.1 per cent of GNP in 1963. Concomitantly an almost steady rise in cash deficits evolved--from the low point of 0.7 per cent of GNP in 1953 and 1954 to 5.3 per cent in 1963.

Due to the weakness of the money market throughout this period, the great majority of these government deficits were covered by new currency issues. For example, in 1963 a sum of 530 billion cruzeiros was needed for financing of the deficit; almost 440 billion cruzeiros were supplied in the form of advances from the Banco do Brasil, which originally or concurrently evolved from the emission of new money. Of the remaining 90 billion cruzeiros used, 62.4 per cent was supplied by the issue and sale of new treasury bills, 25 per cent from surtaxes in form of enforced loans to the federal government, and the final 13.6 per cent from the General Fund.[1]

The practice of covering a large amount of these deficits through the issue of new currency brought about higher domestic prices, thereby encouraging imports. This latter condition tends to bring about a balance of

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[1]Banco do Brasil, Relatório de 1964, p. 189.

payments problem which causes currency depreciation that stimulates exports and rising domestic prices. Hence a circular operation is in effect, always moving toward inflation.

Balance of Payments Pressure

As stated above, the pressure of the balance of payments on the depreciation of the currency of an underdeveloped country can evolve through the attempted continuation of an economic expansion in that country. This type of pressure was evident in 1947, the first year in seven when the normally imported goods were available in unlimited quantities. But the period of economic comfort was short-lived, because shortly after import controls were loosened a heavy surge of imports flooded the country. This surge of purchase of foreign goods, along with the government's acquiescence, was the result of the fear that the conflict in Korea would develop into the third World War and bring about another long period of import shortages. The subsequent stockpiling of all types of imports resulted in a 1951 balance of payments deficit of 6.9 billion cruzeiros, more than double that of any previous year.[1] Controls were tightened, but too late to prevent the formation of the inflationary forces caused by the depreciation of the cruzeiro due to balance of payments pressures. This

[1]International Monetary Fund, International Financial Statistics, April, 1956, p. 220.

type of inflationary factor has been largely responsible for the price rise through 1957, well above the world market, of almost all of Brazil's normal exports, thereby appreciably curtailing exports. This effect would have been lessened, however, if a normal exchange rate had been used for exports instead of the unrealistic overvalued official rate in 1951, 1952, and 1953 until October.

From 1951 to 1954 Brazilian coffee exports did not suffer because of the world shortage and the subsequent high world price rate during that period. Subsequently, however, both coffee prices and export quantities dropped--first the volume of exports by 30 per cent in 1954, followed by a mild revival in 1955 and 1956, and a subsequent drop to much lower depths in 1957 and 1958. The "terms of trade" dropped appreciably in 1955 and followed the drop in coffee export prices all the way down to 1962 (see Table 36). From 1954 to 1962 the drop in index numbers for coffee prices was from 124 to 56, while terms of trade dropped from 134 to 84. The slide in quantum of exports combined with the concomitant steady drop in the terms of trade was easily strong enough to cause balance of payments problems.

As the base year 1953 was a year with a small current account surplus in the balance of payments accounts, these indexes are very legible and meaningful for balance of payments analysis. After 1956 the annual "ability to

Table 36

Indexes of Quantum of Imports, Exports, and Coffee Exports; Coffee Export Prices; Ability to Import; and Terms of Trade - 1945-1963 (Base: 1953 average = 100)

Year	Quantum of Imports	Quantum of Exports	Terms of Trade	Ability to Import	Coffee Export Prices in U.S.$	Quantum of Coffee Exports
1945	60	110	68	75	23	91
1946	50	133	47	63	32	100
1947	70	127	45	57	41	95
1948	63	131	44	58	40	112
1949	73	117	53	62	47	125
1950	89	102	93	95	83	95
1951	135	109	95	104	93	105
1952	131	90	90	81	94	102
1953	100	100	100	100	100	100
1954	142	86	134	115	124	70
1955	126	100	118	118	88	88
1956	119	108	113	122	88	108
1957	145	100	117	117	84	92
1958	145	96	119	114	76	83
1959	160	117	109	128	60	112
1960	161	118	101	119	61	108
1961	151	128	97	124	60	109
1962	140	118	84	99	56	105
1963	146	130	91	118	55	125

Source: Instituto Brasileiro de Economia, Conjuntura Econômica, Int. Ed., Year XIII, No. 1, January (Rio de Janeiro: Fundação Getúlio Vargas, 1966), pp. 67, 72-76.

import" was much less than the respective quantum of imports.[1] This situation developed balance of payments pressures that greatly influenced the acceleration of inflation after 1956 from a trot to speeds found only in the Gran Prix.

For substantiation of the above argument concerning the effect of balance of payments pressures over the 1953-1963 period, nine of the twelve years in the 1952-1963 span showed a deficit in current transactions (merchandise and services) ranging from 132 million U. S. dollars in 1963 to 709 million U. S. dollars in 1952. The other three years were responsible for two small surpluses and a small deficit, viz., surpluses of 17 million U. S. dollars in 1953 and 7 million U. S. dollars in 1956, and a deficit of 34 million U. S. dollars in 1955.[2] (See Table 37 for details.)

Terms of Trade

The terms of trade is a factor that can cause or prevent the immediate emergency of a balance of payment problem. During the period of economic expansion, as in the upswing of the business cycle, the increase in prices of agrarian products is greater than the increase in

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[1]SUMOC, Boletim, Vol. XI, No. 1, Janeiro (Rio de Janeiro: Irmãos Di Giorgio & Cia. Ltda., 1965), p. 66.

[2]Ibid.

Table 37

Current Transactions of Balance of Payments Accounts - 1952-1963

Year	Trade Balance[a]	Goods and Services	Current Donations	Total Current Transactions
1952	-286	-707	- 2	-709
1953	423	31	-14	17
1954	150	-230	- 5	-235
1955	320	- 24	-10	- 34
1956	436	18	-11	7
1957	107	-286	-13	-299
1958	64	-262	- 4	-266
1959	72	-335	-10	-345
1960	- 24	-533	-15	-548
1961[b]	111	-303	15	-288
1962[b]	- 90	-500	38	-462
1963[b]	112	-156	24	-132

[a]Difference between exports, FOB, and imports, FOB; a minus sign indicates a deficit of exports.

[b]Preliminary data.

Source: SUMOC, Boletim, Vol. IX, No. 1, Janeiro de 1965, p. 64.

prices of manufactured goods, while in the downswing the fall is also greater than the fall in prices of manufactures. An agrarian country like Brazil, therefore, is even more strongly affected by the business cycle or any economic fluctuation than is an industrial country. In either case--the upswing or the downswing--the result is internal inflation for Brazil. Better terms of trade during the 1920's was one of the causes of the inflation, while the unfavorable terms of trade during the 1930's helped cause inflation via international depreciation of the cruzeiro. The same may be said for the period 1955-1963.

Upon rechecking Table 36, some persons may be led to believe that Brazil's terms of trade were favorable over the first eight of the eleven year span of this study because each year is represented by a figure equal to or greater than 100. This, however, is neither the true nor complete picture. Actually the terms of trade represent a change in the relationship between prices for exports and prices for imports between two time periods. Hence the sole determinant may sometimes seem to be the selection of the base year. Had the period 1946-1948 been selected as the base, then, as the terms of trade of all subsequent years or longer periods of time would be greater than 100, the terms of trade would be considered as favorable. The reverse would be true if the base period in the table were moved forward one year to 1954;

then all but the base year would be less than 100 and, therefore, with unfavorable trade balances.

As was indicated in the previous section on balance of payments pressures, the comparison of the product--of the terms of trade multiplied by the export quantum index--with the import quantum index will be more meaningful provided the base period is one close to equilibrium in the measurement of current expenditures of balance of payments accounts for the period. This same principle is pertinent for a comprehension of the "terms of trade" influence on inflation. Actually the inflationary push concerning terms of trade will be felt through balance of payment pressures for unfavorable terms of trade, and through the export balance of trade for favorable terms of trade. Therefore, the final determination must come from the comparison of the "ability to import" with the quantum of imports. Of course, it must also be assumed that there will be no effective change in compositing of exports or imports; and that other current account expenditures and gains will not experience any basic transition, viz., the change from a buyer of freight and insurance services to that of a net seller of both.

A major problem that Brazil still has is the high dependence on one product--a tree crop--representing a large percentage of its exports. Upon comparing the value changes of the terms of trade with those of the coffee export prices index in Table 36, it can be seen that there

was a much higher correlation during the post-war period before 1953 than afterwards. This can be explained by the lower percentage of coffee in the export picture after 1953 and by the changing composition of Brazilian exports and imports, especially since 1957. However, as coffee during the final three-year span of the later period accounted for slightly over 52 per cent of export earnings, it still should be considered as a very important determinant of the terms of trade.[1]

Government Subsidy Payments

Since World War II the Brazilian government has given substantial aid to inflation through the payment of large subsidies and bonuses to producers and traders of agricultural and manufactured products, as well as to transportation companies. These payments have been made for the support of the enforced low rate structure with respect to the transportation and public utility companies, and for the purchase and storage of surplus farm products. Most of this extra expense of government is not covered in the ordinary government budget because it is administered by the respective autarchies whose costs or profits are not included in the government budget.

The autarchies are federal or state institutions that have complete control over their budgets and revenues.

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[1] IBGE, Anuário Estatístico do Brasil - 1964, pp. 155, 165.

Most of these organisations are completely owned by the government; however, a limited number are "mixed companies" with the participation of less than 50 per cent of private capital. These entities include government banks, railways, shipping lines, manufacturing companies, and official cartels of large producers of such products as sugar, coffee, alcohol, salt, and pine lumber. Some of these organisations are supported by special taxes, subsidies, and grants, none of which are included in the regular government budget.[1]

In 1947 there were eighty-one autarchias in operation.[2] Since then many new ones have been formed. Among the more important newcomers are: Petrobras, the petroleum monopoly for exploration and new refining; the Federal Railway Network, RFFSA; the National Cooperative Bank; plus the national and regional development banks. Since February, 1961, many of the autarchias have been placed under control of one of the two new ministries created that month. They are the Ministry of Industry and Commerce and the Ministry of Mines and Power.[3] This amalgamation of parts should at least improve the operations of the autarchies

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[1] Wythe, pp. 272-74.

[2] Ibid., pp. 270-71.

[3] Meare, p. 25.

affected through some centralized coordination of operations and plans, if not of budget control.

Control of Credit and Currency

In summary, the lack of credit control in the upswing of the business cycle and the lack of currency control during the entire period appear to be the underlying factors of the continuous inflationary push in Brazil. Despite the nominal controlling organizations, there was not sufficient control of monetary or fiscal policy to avoid the inflationary tendencies caused by excess government spending or issue of currency. The establishment of effective controls, however, would not eliminate all of the factors, because the relatively high import coefficient, inelastic supply of exports, economic expansion of a young country, and the balance of payments pressures are all factors that would still be effective, although to a lesser degree. These controls, however, would enable Brazil to possess a more stable currency, which is a prerequisite to a solution of the balance of payments problems.

There has been a tremendous expansion in the issue and circulation of money since 1952. The responsibility for this situation is shared by a combination of factors, among which are: the continuous government budget deficits; the lack of credit control over the largest of commercial banks, the General Credit Department of the Banco do Brasil; the weakness of the money market; and the

absence of government control of the deficits of the many autarchies. A perusal of Table 34 will show that the issue of paper money over the decade (1953-1963) increased by almost nineteen times the total amount that had been issued by the end of 1953. The money supply increased by about the same ratio--almost eighteen.

Although the money in circulation had increased by a multiple of only about 13.4, the 100 per cent increase in the velocity of money over the decade presented an effective change in the supply of money of a multiple of 27 instead of only 13.4. However, as the real value of commercial transactions had also doubled, the inflationary impetus of the increase in money in circulation was relegated back to the multiple of 13.4. This ties in very closely with the general price level increase of about 14.7 times the price level of the base year.

Probably the question uppermost in the reader's mind at the present juncture is: "What monetary controls were attempted by SUMOO or other government agencies during the 1953-1963 period?" The answer is, very little. The rediscount rate was changed only once, raised from 6 to 8 per cent in 1958, in an attempt to head off the first strong acceleration of the rate of inflation during the period. No change was made in the reserve requirements until 1960, when the requirement for sight deposits were raised from 5 to 6 per cent, where it remained through 1963. The

rates on time deposits were unchanged over the entire period.[1]

It has been often said, not only of Brazil but also of similar countries, that the dominant commercial interests are so attached to the system of permanent depreciation of the value of the currency that they do nothing to stop it. Instead they set their courses with the tide of inflation charted in, instead of trying to fight it. This may be partly true, but there are more people adversely affected by inflation than helped, so there is reason to believe that a successful move can and will be made to control inflation in Brazil. As during the 1898-1906 period, the control of inflation and even appreciation of the currency is possible in Brazil. The two unusual and important factors in operation during this period were a balanced government budget and a contraction of the currency in circulation. As stated in the report of the Joint Brazil-United States Economic Development Commission, "It is certain, however, that without credit expansion and the extraordinary increase in the money supply, the price inflation could never have proceeded as far and as fast as it actually happened."[2] and this was written in 1953,

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[1]SUMOC, p. 45.

[2]Institute of Inter-American Affairs, The Development of Brazil (Washington: U. S. Government Printing Office, 1954), p. 38.

before the occurrence of much more rapid inflation from 1957 to 1963.

Some Effects of Inflation

In addition to the effects already discussed in this chapter, there are some specific cases that should at least be mentioned. Among them are the water, electric power and telephone shortages in both the cities of São Paulo and Rio de Janeiro. It is understandable that some shortages should develop, if only from the rapidity of urban growth, especially in the case of São Paulo, the fastest growing large city in the world. But the shortages were not mild and were due chiefly to the refusal of government to allow rates to increase with inflation--at least not fast enough to make it profitable to modernize and enlarge the facilities. The fact that a foreign company, Canadian Light and Power, controls the power system in both cities and controls the telephone system and streetcar line in Rio de Janeiro could have no effect on the government's policy of rate fixing. However, in Rio a seven-year wait was normal for a telephone installation in certain parts of the city; and often there was no water available in the lines to some neighborhoods for as long as a week. The water was always cut off from certain neighborhoods at different times of the day. In 1957 the streetcars in Rio were all of a pre-1930 vintage; and the fare was only one cruzeiro--less than one and one-half U. S. cents--for a ride as long as six miles.

Special anti-Inflation Plans

In 1949 the World Bank came up with a tax plan designed to remove some inflationary factors by 100 per cent taxation on "unearned" profits (profits resulting from price increases) of an expansion period.[1] The money so obtained would be used by the federal government for the formation of a guarantee fund for foreign loans and investments made to Brazilian entities for development considered necessary for the economy.[2] Such a system, however, would be very difficult to operate and the beneficial results may be only the limited deflationary effect of the removal of a small part of the currency during an inflation. Another delimiting factor is that much of the tax would be collected three to fifteen months after its receipt. This currency generates an extended inflation before its collection and will continue to do so as long as the tax is not on a pay-as-you-go basis. Although this plan was approved by the Finance Minister and his Chief of Economic and Financial Studies, it never became law in Brazil.[3]

A more complete anti-cyclical policy was the proposal by the Argentine economist, Raul Prebisch. The argument

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[1] Bulhoes, p. 42.

[2] Ibid., pp. 47-50.

[3] Ibid.

presented is that countries of the economic periphery are adversely affected by both rise and fall of the business cycle and that these effects can be alleviated by lessening the detrimental inflationary forces of the rise through an enforced savings plan on the initial beneficiaries of the world-wide upswing, the exporters. This would be accomplished through the partial payment for exports by means of government securities.[1]

Neither of these two programs has been adopted by Brazil; however, in both income tax and payment for exports, surtaxes and payment systems have been used that are at least first cousins to these two plans. First, the surcharge on individual and business income taxes in the higher income brackets has been used over most of the eleven-year span of time of this study. This surtax is in the form of the mandatory purchase of five-year government bonds. In essence it is a forced loan to the federal government; and coupled with the subsequent inflation it is also a tax.

In 1960 the system was initiated whereby part of the payments for exports was paid with federal securities in the form of 120-day Bills of Exchange.[2] Of course, the cause and effect of this payment system were quite

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[1]Ibid., pp. 40-42.

[2]Cf. supra, p. 154.

different from what they would have been had long or medium term securities been used. Short-term securities were not included in Prebisch's plan.

The prior system, in which an overvalued exchange rate was used for the cruzeiro in the payments to exporters of the main export products, was similar in effect to the excess profits tax of the World Bank, although it was applied only to exports. With the $22.00 per bag fee on exported coffee that was substituted for the overvalued exchange rate, there is still the effective excess profits tax on exporters of coffee. Upon reviewing in Table 34 the secular decline of the "quantums" of exports and of coffee since 1953, one can see the apparent detrimental effect of the "overvalued exchange rate" tax on exports in general and coffee in particular

This statement written in 1953 remains apropos:

> Brazilian statesmanship faces no greater challenge at the present time than to devise and implement coordinated monetary, fiscal, exchange and wage policies that will enable the country to maintain high levels of investment with a minimum of inflation and reduced pressures on the balance of payments.[1]

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[1] Institute of Inter-American Affairs, p. 45.

Chapter 8

CONCLUSIONS

Rough Determination of Growth Rates Necessary for Achievement of Goals

The rate of increase in real product per capita of a nation depends on four variables. They are: the rate of formation of capital, the rate of capital depreciation, the capital-product ratio, and the rate of demographic expansion, viz.:[1]

$$r = \frac{s - d}{v} - p$$

r = rate of annual increase of real product per capita
s = gross rate of investment (capital formation/gross national product)
d = rate of depreciation of capital
v = capital-product ratio
p = rate of annual population increase

Of course, we realize that there are also other factors that influence the rate of increase in real product per capita such as the sectorial composition of investments, urbanization, the supply of natural resources, the existence of "economic road-blocks," etc., but because of the difficulty of measurement and unnecessary complication of

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[1] Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Economica, pp. XII 13-14.

the prognostication we will limit the determination to the above formula.

As the demographic rate of expansion has been increasing consistently because of the declining mortality rate, and as the 1950-1960 rate of expansion was 3.1 per cent, the Brazilian Planning Ministry uses a 3.5 rate of demographic increase for the period following 1963.[1] The capital-product ratio is shown as two and capital depreciation as 5 per cent of Gross Internal Product.[2] With this combination of ingredients, a 12 per cent gross rate of investment is necessary to prevent a decline of real product per capita.

Assuming a fixed capital ratio of two, a 16 per cent gross rate of investment will cause an increase in real product per capita of 2 per cent a year and a 20 per cent gross rate of investment will be necessary for a 4 per cent increase. As about a 3 per cent per annum growth rate (increase in real income per capita) is necessary to double the income per capita by 1980 and thereby remove Brazil from the "underdeveloped status," this should represent a normal goal.[3] Therefore the goal of 6.5 per cent increase of real product per annum should be

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[1] Ibid., pp. 14-16.

[2] Ibid., p. 16.

[3] Ibid., p. 19.

considered as one of the current economic goals of Brazil. This is not unreasonable upon consideration of the 7 per cent per annum increase experienced over the 1957-1961 period.

Comparisons of Results and Projections

Before attempting to evaluate the over-all governmental operations in the field of monetary and fiscal policy over the eleven-year span of 1953-1963, statistics on the growth of certain basic industries and import substitutes are needed.

In Table 38 and the subsequent tables, data are presented on production beyond the period of study, mainly to give a more complete picture of the failures or the accomplishments of the goals outlined by the economic plans in operation during the period of study. The index numbers of productivity in the fields of iron, steel, coal, cement, and iron ore that are presented in Table 38, except for coal, present a healthy picture of accelerated productivity of basic industries, when 1963 is the end of our perusal.

Pig iron, steel bars, and cement all increased by at least 150 per cent over the decade from 1953 to 1963; while the development of electric power capacity and the extraction of iron ore advanced to a bit more than triple the 1953 production over the same span of time. The extraction of crude petroleum and the volume of production of refined gasoline do not lend themselves to the use of

Table 38

Index Numbers of Extraction or Production of Iron Ore, Pig Iron, Steel Ingots, Coal, and Cement
Selected Years 1953-1965
(Base: 1953 = 100)

Year	Iron Ore	Pig Iron	Steel Ingots	Coal	Cement
1953	100	100	100	100	100
1957	139	148	128	102	167
1959	247	170	148	114	188
1961	284	205	197	119	232
1963	312	282	256	140	251
1965	504	267	285	155	257

Sources: IBGE, Anuário Estatístico do Brasil - 1955, 1960, 1962, 1964, 1966, passim.

indexes based on a 1953 base because of a combination of very small production figures before 1954, and very rapid acceleration of petroleum refining and extraction between 1953 and 1957.[1] Therefore, this brief history of extraction and refining of petroleum is presented in quantities along with the development of electric power capacity (see Table 39).

Upon observation of the rates of increase from a base year of 1957, we can see a very rapid increase in the

[1] IBGE, Anuário Estatístico do Brasil - 1955, pp. 79, 167.

Table 39

Extraction and Production of Crude Petroleum, Motor Gasoline, and Electric Power Capacity Selected Years 1953-1965

Year	Crude Petroleum (million tons)	Refined Gasoline (million barrels)	Electric Power Capacity (million KW)
1953	0.1	0.7	2.1
1957	1.6	18.0	3.8
1959	3.8	19.3	4.1
1961	5.5	23.7	5.2
1963	5.7	32.8	6.4
1965	5.5	*	7.4

*Not available.

Sources: IBGE, Anuário Estatístico do Brasil - 1955, 1960, 1962, 1964, 1966, passim.

extraction of crude petroleum between 1957 and 1963--greater than 250 per cent. For the same period, the increase in gasoline refining was not close to acceleration rate of petroleum extraction; however, over the last two years (1962-1963) refining showed an increase of almost 39 per cent.

As all of the above-mentioned items are either products of basic industries, a necessary raw material of basic industry, or a measure of the size of a basic industry itself, their accelerated development should be even faster

than the required "balanced growth" needed to fulfil the stated goals of the different development plans covered in Part II. For instance, the lack of rapid development of coal--only a 55 per cent increase over the ten-year span--should be taken up by a still more rapid development of some other fuel, e.g., petroleum or electric power. Although both petroleum and electric power developed rapidly, especially the latter, neither exceeded its goal.

With reference to the Furtado Plan's seven specific goals, only one of them was fulfilled over the three-year period--1963-1965--the increase in electric power capacity to 7.4 million kilowatts in 1965. And this success is contingent on lowering the actual capacity increase as stated in the plan. The Furtado Plan listed 4,751,000 kilowatts as the electric power capacity for 1961, while the real capacity was 5.2 million kilowatts as shown in Table 39. Steel ingots rose from 2.4 to 2.9 million tons from 1962 to 1965 instead of the projected expansion from 2.7 to 4.3 million tons for the same period of time.[1] Likewise, as may be seen in Tables 40 and 41, the goals for the increase in production of the tractor and automotive transport industries fell far short of their intended goals for the three-year period ending with 1965. The actual increases in the production of tractors over the base

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[1]IBGE, Anuário Estatístico do Brasil - 1964, p. 112.

Table 40

Production of Farm and Road Construction Tractors
Selected Years 1960-1965
(in units)

Year	Light Tractors	Medium Tractors	Heavy Tractors
1960	0	37	0
1961	25	1,573	80
1963	8,990	4,179	1,739
1965	2,964	3,087	2,072

Sources: IBGE, Anuário Estatístico do Brasil - 1964, 1966, pp. 114, 155.

of 8,000 units was a paltry 123 units instead of the projected 10,000 unit increase. The goal of an annual production of 270,000 units of automobiles and trucks in 1965 fell shy by about 85,000 units, with losses in production for all types of vehicles except automobiles.

In general the over-all goals of production and economic growth were achieved upon consideration of the period extending from 1953 through 1961. The real rate of increase in production averaged over 6 per cent for this whole period, ending with a 7.3 per cent increase for 1961, the terminal year. At least two factors tend to debilitate or dispel this picture of success. First, an appreciable amount of the production increase over this nine-year span, especially in 1961, was due to the large

Table 41

Productions of Automotive Transport 1957-1965
(in thousands)

Year	Automobiles	Medium Weight Trucks	Heavy Trucks and Buses	Pick-up Trucks and Station Wagons	Jeep Type
1957	0.0	15.5	3.4	2.6	9.3
1958	2.2	25.7	5.2	13.7	14.3
1959	12.0	34.6	5.0	26.4	18.2
1960	37.8	35.2	6.5	34.0	19.5
1961	55.1	25.4	5.1	42.5	17.6
1962	74.9	35.6	4.1	54.4	22.2
1963	86.0	20.5	3.5	50.2	13.9
1964	97.8	21.0	3.5	48.5	13.0
1965	103.4	20.9	4.1	46.7	10.1

Sources: IBGE, Anuário Estatístico do Brasil - 1962, 1966, pp. 75, 154.

increase in the production of coffee. All or almost all of this increase in coffee production represented no real positive value to the economy as there was no demand for it in either the foreign or domestic market. This statement may be underlined by the fact that the money paid for it by the coffee authorities was contingent upon the increase in the government debt and therefore was available only after the printing (emission) of more paper money without cover.

The second delimiting factor evolves with the appearance of the final two years--1962 and 1963. In 1962 the rate of development began to slow down. The real product increase was only 5.4 per cent and the per capita increase was only 2.2 per cent. The year 1963 was much worse, as real product increased by 1.6 per cent, with a resultant decline in per capita production of 1.6 per cent.

Causes of the Differences between Plans and Results

What are the causes of this shift from economic growth at a relatively high rate in 1961 to actual depression of economic growth in 1963? The most obvious cause for this statistical slow-down and reversal of growth is a series of crop failures, especially of coffee, during this two-year span of time. Drought, fire, and floods were all factors determining the crop failures. Manufacturing was also slowed down by a climactic factor, when severe rationing of electricity in São Paulo and Rio de Janeiro was caused by the lack of rainfall in the watershed of the area supplying hydroelectric power to these two great metropolitan areas.

Another factor of importance was the lack of confidence of the business community in the economy, due to socio-economic conditions present at that time, e.g., the resignation of Quadros, lack of confidence in Goulart, proposal for a new restrictive law on profit remittance, and government confiscation of property of foreign firms.

The result was a reduction in investments, both foreign and domestic, with a subsequent reduction in the normal rate of increase in manufacturing production.[1] Probably the most important agent effecting this lack of confidence on the part of the entrepreneurs was the galloping inflation that not only had continued over the 1959-1961 span but had reached the jet pace of 52.6 per cent per annum in 1962 and 73.5 per cent in 1963 (see Table 31).

With simple syllogistic reasoning one can see that economically speaking two basic corrections were in order to lessen the importance of climatic factors, and to eliminate the detrimental effects of continuous and accelerating inflation. The basic theory of the Argentine economist, Raul Prebisch, of industrial expansion to lessen the dependence of the economy on agricultural products would in the long run be the answer to Brazil's economic vulnerability to climatic changes. Upon observation of the accelerated development of basic industry and transportation over the whole eleven-year span of this study, one can conclude that this part of remedial action has already been consummated. The second and final corrective action necessary for the conclusion of the economic reversals that occurred in 1962 and 1963 is the control or elimination of inflation. As has already been outlined

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[1]Gabinete do Ministro Extraordinario para o Planejamento e Coordenação Econômico, p. III 12.

in the previous chapter, Brazil has failed miserably in its halfhearted attempts to control inflation, by attacking the results instead of the causes.

It is always much easier to engage in prognostications of what might have been had the quarterback passed instead of punted, after the punt has been blocked. Briefly I will attempt the same concerning Brazil's march forward had inflation been controlled over the 1953-1963 period.

Had monetary controls been handled by a central bank completely detached from the commercial bank operations of the Banco do Brazil, and had the autarchies been placed under the budgetary control of the federal or state governments, with rates tied to the costs of the final service or product, along with a budget that was balanced or at least close enough to a balance so that there was no excessive of effective currency in circulation greater than the increase in the production of economic goods and services, then inflation could have been controlled. The results would probably have been a slower rate of economic growth over the middle years of the period because of the resultant diminution of government investments in the infrastructure. However, the increased confidence of the business community and of the consumer should have taken up some of the slack through an increase in private investment in capital expenditures. Upon the arrival of the year 1962, there would have been increased public and private confidence in the Brazilian economy because of

the economic stability and growth already in evidence. Although the real or statistical growth rate would not have been as high as actually was experienced, there would have been a much better probability for the continuance of the secular growth rate of 6.0 to 6.5 per cent. This situation would have been in effect not only because of the stability and optimism of the business community but also because of the lessened potential of the acceleration principal due to a reduction in the acceleration of the consumption function.

There are many actions that could be criticized, viz., the expensive transfer of the capital of a debt ridden nation, giving preferred tax and exchange treatment to the automotive industry by designating it as a basic industry, and the combinations of multiple exchange systems used with exports and imports. In addition, there are many suggestions that could be made concerning actions necessary to control inflation and remove sectoral imbalance; however, most of these suggestions have already been made earlier in this paper. Of course, the earlier[1] removal of the commercial banking operations from the organization (Banco do Brasil) that also performed central banking functions would have made the use of monetary controls

[1] In 1965 this action was taken in the formation of a central bank apart from the Banco do Brasil.

more effective, e.g., changes in rediscount rates and commercial bank reserve requirements.

Any further suggestions could be ruled out as value judgments; hence we will make the prescription in the general classifications of control over inflation, along with the corrections of sectoral imbalances and the elimination of other growth deterrents such as rate corrections on railroads and public utilities, administrative reforms in the tax system, and the government watchdogs. Of course, there are other noneconomic factors that are very important in the control of inflation and in the attention of the desired rate of economic growth. The most important exogenous ingredient is probably a stable political setting; however, as this paper is limited to economic analysis, we will leave this and other pertinent requisites to the scientists of the respective disciplines.

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BIOGRAPHICAL SKETCH

James Henderson Dukes was born April 30, 1919, at Charleston, South Carolina. In June, 1936, he was graduated from Decatur Boys High School. In June, 1940, he received the degree of Bachelor of Science with a major in Ceramic Engineering from Georgia School of Technology. From 1940 to 1942 he worked for Texaco Incorporated as an engineer and administrator in Cuba and Puerto Rico. From 1942 until 1946 he served as an officer in the United States Navy, mainly aboard minesweepers in the Caribbean and in the Pacific. Following discharge from the navy, he returned to Texaco and worked in New York City until 1947. From 1947 to 1951 he worked for Tennessee Eastman Corporation in Latin America and New York City as a technical sales manager and sales representative. In 1951 he enrolled in the Graduate School of Emory University, and received the degree of Master of Arts in June, 1953. In 1953 he formed the Dukes-Vendrell Company, a manufacturer and manufacturer's agent for spanial lubricants and lubricant aids. From 1954 to 1958 he worked for the Foreign Operations Administration in Washington, D. C., and for the International Cooperation Administration in Rio de Janeiro, Brazil, as program analyst for the aid program. From 1958 to 1960 he worked as a life insurance agent with College Life Insurance Company in Atlanta, Georgia. In September, 1960, he enrolled in the

Graduate School of the University of Florida. He worked as a teaching assistant in the Department of Finance and Insurance until September, 1962, and as an instructor in the Department of Economics until June, 1963. From September, 1963, to June, 1964, he worked as an assistant professor of economics at Jacksonville University. From July, 1964, until the present time he has been employed at the United States Naval Academy as assistant professor of economics. From February to December, 1967, he worked as visiting professor of economics at the National University of Honduras, Tegucigalpa, Honduras, under the auspices of a Fulbright Grant.

James Henderson Dukes is married to the former Thelma Chance and is the father of three children. He is a member of Sigma Chi, Kerameos, the American Economic Association, the Southern Economic Association, the Society for International Development, the American Association of University Professors, and the Southeastern Conference on Latin-American Studies.

This dissertation was prepared under the direction of the chairman of the candidate's supervisory committee and has been approved by all members of that committee. It was submitted to the Dean of the College of Business Administration and to the Graduate Council, and was approved as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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